

ESSENTIAL SKILLS

1. The concept of teaching the whole child in “philosophy of pragmatism in education” means teaching students to be good

- (A) learners
- (B) thinkers
- (C) scientists
- (D) citizens

2. As people grow older, the _____ of learning declines.

- (A) speed
- (B) power
- (C) quality
- (D) quantity

3. Which from the following should be used to increase correct responses and appropriate behavior by students?

- (A) Praise
- (B) Reward
- (C) Ignorance
- (D) Strictness

4. Which from the following should be used to decrease minor inappropriate behavior by students?

- (A) Praise
- (B) Reward
- (C) Ignorance
- (D) Strictness

5. The book Emile or “On Education” on the nature of education and man is written by

- (A) Aristotle

- (B) Plato
- (C) John Dewey
- (D) Rousseau

6. Different methods of teaching are referred to as

- (A) pedagogy
- (B) epistemology
- (C) metaphysics
- (D) philosophy of education

7. Epistemology is the branch of philosophy that deals with

- (A) teaching
- (B) learning
- (C) knowledge
- (D) classroom management

8. The Law of Effect is a psychology principle that can be effectively used in

- (A) accelerate learning
- (B) curriculum development
- (C) teaching methods
- (D) classroom management

9. An assessment that is carried out throughout the module of the course is known as

- (A) initial assessment
- (B) formative assessment
- (C) diagnostic assessment
- (D) summative assessment

10. Which three main capacities “Waldorf Education System” is aimed to cultivate in children?

- (A) thinking, planning, acting

- (B) thinking, feeling, willing
- (C) observing, thinking, analyzing
- (D) observing, listing, calculating

11. The idea of “pragmatism in educational philosophy” tells that education should be about

- (A) virtue
- (B) obedience
- (C) life and growth
- (D) shaping good citizens

12. An aspect of pragmatism is experiential learning that says education should come through

- (A) experience
- (B) practice
- (C) knowledge
- (D) observations

13. Progressivism believes that children learn in a/an

- (A) community
- (B) competition
- (C) isolation
- (D) closed environment

14. The truth of the conclusion of an inductive argument is

- (A) certain
- (B) experience
- (C) observation
- (D) probable

15. Pedagogy is a Greek word which literally means

- (A) to understand the child

- (B) to guide the child
- (C) to educate the child
- (D) to lead the child

16. Pedagogy is the study of

- (A) education
- (B) learning process
- (C) teaching methods
- (D) guiding students

17. The philosopher who worked in mathematical and scientific didactic was

- (A) Jean Piaget
- (B) John Dewey
- (C) Martin Wagenschein
- (D) Lev Vygotsky

18. The use of technology to enhance learning process is called _____ in education.

- (A) IT
- (B) ICT
- (C) Information technology
- (D) Communication technology

19. A scoring guide use to evaluate the quality of students is known as

- (A) rubrics
- (B) checklists
- (C) inventories
- (D) rating scales

20. What is meant by “Symposium” in the academic world?

- (A) Lecture

- (B) Museum
- (C) Training
- (D) Conference

21. According to Mark Smith, the first step in the curriculum development is

- (A) diagnosis of needs
- (B) formulation of objectives
- (C) selection of content
- (D) selection of learning experiences

22. Teachers should present information to the students clearly and in interesting way, and relate this new information to the things students

- (A) don't know
- (B) already know
- (C) willing to know
- (D) not willing to know

23. According to John Dewey, school is a _____ institution, and education is a _____ process.

- (A) social, social
- (B) social, philosophical
- (C) philosophical, philosophical
- (D) environmental, psychological

24. According to John Dewey, schools must prepare students for

- (A) present life
- (B) future life
- (C) entrepreneurship
- (D) research

25. Responses that produce a satisfying effect in a particular situation become _____ to occur again in that situation.

- (A) not likely
- (B) equally likely
- (C) less likely
- (D) more likely

26. Responses that produce a discomforting effect become _____ to occur again in that situation.

- (A) not likely
- (B) equally likely
- (C) less likely
- (D) more likely

27. According to Rousseau, at what age a person ready to have a companion of the opposite sex?

- (A) 16
- (B) 17
- (C) 18
- (D) 19

28. The field of study concerned with the construction of thought processes, including remembering, problem solving, and decision-making is called

- (A) Education
- (B) Pedagogy
- (C) Cognitive Development
- (D) Epistemology

29. Jean Piaget proposed _____ stages of Cognitive Development.

- (A) 3
- (B) 4
- (C) 5

(D) 6

30. The more often a particular ability is used the _____ it becomes.

(A) more important

(B) less important

(C) stronger

(D) weaker

31. The longer a particular ability is unused the _____ it becomes.

(A) more important

(B) less important

(C) stronger

(D) weaker

32. The more parts of your brain you use, the more likely you are to _____ information.

(A) use

(B) miss

(C) misuse

(D) retain

33. The conclusion of a deductive argument is

(A) certain

(B) experience

(C) observation

(D) probable

34. The truth of the conclusion of an inductive argument is

(A) certain

(B) experience

(C) observation

(D) probable

35. The process of reasoning from one or more given statements to reach a logically certain conclusion is called

- (A) Deductive Reasoning
- (B) Inductive Reasoning
- (C) Qualitative Reasoning
- (D) Quantitative Reasoning

36. The reasoning in which the given statements are viewed as supplying strong evidence for the truth of the conclusion is called

- (A) Deductive Reasoning
- (B) Inductive Reasoning
- (C) Qualitative Reasoning
- (D) Quantitative Reasoning

37. According to Jean Piaget, children develop abstract logic and reasoning skill during

- (A) Sensorimotor stage
- (B) Preoperational stage
- (C) Concrete operational stage
- (D) Formal operational stage

38. Children are usually egocentric during _____ and _____ stages.

- (A) Sensorimotor, Preoperational
- (B) Preoperational, Concrete operational
- (C) Concrete operational, Formal operational
- (D) Formal operational, Sensorimotor

39. According to Jean Piaget, children are no longer egocentric when entering

- (A) Sensorimotor stage
- (B) Preoperational stage
- (C) Concrete operational stage

(D) Formal operational stage

40. According to Piaget's theory of cognitive development, the Concrete operational stage starts at age

(A) 3

(B) 7

(C) 11

(D) 15

41. According to Piaget's theory of cognitive development, the Formal operational stage starts at age

(A) 3

(B) 7

(C) 11

(D) 15

42. The Department of Education gives greater emphasis on the development of basic skills. What is the philosophical basis for this?

a. Essentialism

b. Existentialism

c. Perennialism

d. Pragmatism

Answer: A

43. Teacher M views his students as unique, free-choosing and responsible individuals. All classroom activities revolve around the said premise. What theory underlies this?

a. Essentialism

b. Existentialism

c. Progressivism

d. Realism

Answer: B

44. Religious rituals in the classroom and in the school programs prove the deep natural religiosity of the Filipinos. Which philosophy has greatly contributed to the tradition?

- a. Buddhism
- b. Confucianism
- c. Hinduism
- d. Islam

Answer: B

45. In order to make Roman education truly utilitarian, how should the day-to-day lessons be taught?

- a. Taught in the students' native dialect
- b. Taught interestingly through the play way method
- c. Related and linked to the events happening in everyday life
- d. Practiced at home under the guidance of their respective parents.

Answer: C

46. Which influenced the military training requirements among students in the secondary and tertiary levels?

- a. Chinese
- b. Greeks
- c. Orientals
- d. Romans

Answer: D

47. Which philosophy has the educational objective to indoctrinate Filipinos to accept the teachings of the Catholic church which is foster faith in God?

- a. Realism
- b. Pragmatism
- c. Idealism
- d. Existentialism

Answer: C

48. Virtue as one component in the teaching of Rizal as a course focuses on the teaching of good and beauty consistent with the good and beauty in God. What philosophy supports this?

- a. Existentialism
- b. Idealism
- c. Progressivism
- d. Social Reconstructionism

Answer: B

49. Giving education the highest budgetary allocation, the Philippine government recognizes the possible contribution of its future citizens to the national development goals of the Philippine society. Which stressed this goal of education for social transformation?

- a. Athenian education
- b. Followers of Christ
- c. Greek education
- d. Roman education

Answer: D

50. The progressivists emphasized the individuality of the child. What is the concern of the reconstructionists?

- a. Experiential learning
- b. Socialization
- c. Social problem

Answer: C

52. One of the following quotations does not conform to the Christian doctrine of Education for Humanitarianism. Which one is it?

- a. Do unto others as you would like others do unto you
- b. Love thy neighbor as thyself
- c. Not on bread alone is man to live but on every utterance that comes from mouth of God
- d. Whatever good things we do to our poor, helpless brothers, we do it for

Answer: C

53. Which theory operates on the “stimulus-response principle”, which means all behaviors are caused by external stimuli?

- a. Contextual theory
- b. Behaviorist theory
- c. Cognitive theory
- d. Constructivist theory

Answer: B

54. Ms. Erika in her Biology class accompanies her discussion with interesting visual aids. She strongly believes that students learn better when lessons are presented with images, real or imagined aside from mere lecture method. Which learning theory does she upholds?

- a. Dual-Coding Theory
- b. Information Processing Theory
- c. Meaningful Reception Learning Theory
- d. Social Cognitive Theory

Answer: A

55. Miss Rita is an excellent Physical Education teacher. She started teaching volleyball to her Grade 2 class. Despite all her efforts, her class does not seem to learn how to play the game. What law of learning was disregarded?

- a. Law of Disuse
- b. Law of Effect
- c. Law of Exercise
- d. Law of Readiness

Answer: D

56. Teacher Jay, a physical education teacher, demonstrates the new skill to be learned so that his students can watch him and later reproduce the skill. What learning theory is associated with the situation?

- a. Dual-Coding Learning Theory
- b. Information Processing
- c. Schema Learning Theory

d. Social Learning

Answer: D

57. Patrice is always fearful of freely roaming dogs but does not mind dogs in a pen or on a leash. What feature of classical conditioning is exhibited?

a. Discrimination

b. Extinction

c. Generalization

d. Practice

Answer: A

58. A music teacher is careful in planning activities for each lesson. He praises liberally and rewards correct answers. What view of learning is exhibited?

a. Classical conditioning

b. Meaningful learning

c. Operant conditioning

d. Social learning

Answer: C

59. Which of the theories of learning presents or states that learning skills are hierarchically arranged?

a. Cumulative Learning

b. Meaningful Learning

c. Social Cognitive Learning

d. Theory of Instruction

Answer: A

60. Which of the following best describes what meaningful learning is?

a. When what is to be learned is new and easy for the students

b. Materials presented are difficult and challenging to the students

c. When the materials to be learned is related to what students already know

d. Students find the lessons easy and relevant to what was assigned to them

Answer: C

61. Rita easily remember dates and events in history. What component of LTM does Rita have?

- a. Creative thinking
- b. Critical thinking
- c. Reflective thinking
- d. Logical thinking

Answer: C

62. An Earth Science has just completed a unit on the sun. As she recognizes her next unit on other stars, she uses the sun as a frame of reference. What view of learning was used?

- a. Discovery learning
- b. Informative learning
- C. Meaningful learning
- d. Transfer learning

Answer: C

63. Which is an application of cognitive approach to motivation?

- a. Explain the reasons for studying the topic
- b. Create a supportive classroom climate for students
- c. Provide clear and prompt feedback on assignments
- d. Begin lessons with challenging questions and conflicting events

Answer: A

64. The first people power was held in February 25, 1986. What kind of knowledge is presented?

- a. Conditional Knowledge
- b. Cognitive Knowledge
- c. Domain-Specific Knowledge
- d. Procedural Knowledge

Answer: B

65. The students of Mrs. Reyes were not able to learn the concepts that she presented yesterday so she taught the same concepts again but this time using a different teaching method. What principle of learning was applied?

- a. Concepts should be presented in varied and different ways
- b. Effort was put forth when tasks are challenging
- c. Learning by doing is more effective than just by sitting and listening
- d. Learning is aided by formulating and asking questions

Answer: A

66. After just being introduced to another guest in the party, Tom cannot remember the name of the guest he was introduced to. In what memory stage was the information stored in?

- a. Episodic memory
- b. Semantic memory
- c. Sensory memory
- d. Working memory

Answer: C

67. Vygotsky claimed that social interaction is important for learning. What does this imply?

- a. Children are independent problem solvers
- b. Children learn from adults and other children
- c. Children learn by passive presentation of information
- d. Children in the crib has no learning yet, since they are not capable of interaction

Answer: B

68. How would you help a student who is intelligent but is underachieving in class?

- a. Provide challenging activities which he/she can accomplish
- b. Recognize his talents by asking him/her to help other students with their work
- c. Identify the immediate causes of difficulties that cause his/her being an underachiever

d. Allow him/her to work with the slow learner group to cope with the academic needs of the lesson.

Answer: C

69. Mrs. Corpuz always makes sure that her pre- school classroom is well organized and clean. She puts up interesting and colorful visuals on the bulletin boards. What principle of motivation was applied?

- a. Incentives motivate learning
- b. Internal motivation is longer lasting and more self-directive than is external motivation
- c. Motivation is enhanced by the way in which instructional material is organized.
- d. The environment can be used to focus the student's attention on what needs to be learned.

Answer: D

70. For every correct answer, the teacher would give a star to her students. What schedule of reinforcement was used?

- a. Fixed interval
- b. Fixed ratio
- c. Variable interval
- d. Variable ratio

Answer: B

71. Marga, a six year old, always asked her playmates to sit in front of her small black board and she plays teacher. Her mother is a teacher. What theory explains Marga's behavior?

- a. Classical Conditioning
- b. Operant Conditioning
- c. Social Learning
- d. Information Processing

Answer: C

72. What should the teacher do to help students learn psychomotor skills?

- a. Teacher uses verbal explanation and description of the movements in addition to live demonstration of the movements

- b. Teacher provides feedback to the learner about his/her progress
- c. Teacher encourages the learner to practice, in order to maintain his/her sharpness of the movements
- d. All of the above

Answer: D

73. The teacher presented a new lesson where in the students were asked to work on a new project which was somewhat complicated. The students showed interest while working on the project. What principle applies to the situation?

- a. Effort was put forth when tasks are challenging
- b. Lessons should be presented in varied and different ways
- c. Meaningful materials are readily learned than nonsense materials
- d. Teachers should provide opportunities for meaningful and appropriate practice

Answer: A

74. Maturation should precede certain types of learning. How is this applied in the classroom?

- a. Concepts should be taught from simple to complex
- b. Consider the age level of students in assigning tasks
- c. Follow the interest of students in assigning tasks
- d. Give the same task to all students in a particular grade level

Answer: A

75. Luz easily learns a lesson when she is working with laboratory equipment but hardly remembers a lesson the teacher lectured on. What type of learner is Luz?

- a. Auditory Learner
- b. Kinesthetic Learner
- c. Tactile Learner
- d. Visual Learner

Answer: D

76. Which of the following statements about motivation is false?

- a. External motivation is longer lasting and more self-directive than internal motivation
- b. Internal motivation is fueled by one's goals or ambitions
- c. Motivation is enhanced by the way in which the instructional material is organized
- d. Motivation to perform is affected by expectancy and value

Answer: A

77. What is the basic structure of a zero conditional sentence?

- a) If + past simple, past simple
- b) If + present simple, present simple
- c) If + future simple, future simple
- d) If + past continuous, past continuous

Answer: b) If + present simple, present simple

79. When is the zero conditional used?

- a) To express hypothetical situations
- b) To discuss past events
- c) To express general truths and scientific facts
- d) To talk about future possibilities

Answer: c) To express general truths and scientific facts

80. Which of the following is an example of a general truth in the zero conditional?

- a) If I win the lottery, I will buy a new car.
- b) If you work hard, you may succeed.
- c) If you mix red and blue, you get purple.
- d) If I had more time, I would travel.

Answer: c) If you mix red and blue, you get purple.

81. In the zero conditional, what can “if” be replaced with in spoken English, especially when discussing routines or habits?

- a) Only “whether”
- b) Only “unless”
- c) “When” or “unless”
- d) “When” or “whether”

Answer: c) “When” or “unless”

82. Which of the following is NOT a common use of the zero conditional?

- a) Expressing general truths
- b) Stating hypothetical situations
- c) Describing scientific facts
- d) Discussing laws of nature

Answer: b) Stating hypothetical situations

83. Which of the following sentences is in the zero conditional form?

- a) If I see him tomorrow, I will ask him.
- b) If you don’t study, you won’t pass the exam.
- c) If you add salt to water, it dissolves.
- d) If it rains, I’ll bring an umbrella.

Answer: c) If you add salt to water, it dissolves.

84. In a zero conditional sentence, which part of the sentence expresses the result?

- a) The “if” clause
- b) The subject
- c) The main clause
- d) The conjunction

Answer: c) The main clause

85. The zero conditional is used to discuss situations that are:

- a) Hypothetical and variable
- b) Past events and actions
- c) Always true and consistent
- d) Based on personal opinions

Answer: c) Always true and consistent

86. Which of the following is an example of a scientific fact in the zero conditional?

- a) If you exercise regularly, you will stay healthy.
- b) If you mix baking soda and vinegar, it produces a chemical reaction.
- c) If it's sunny, we will go to the beach.
- d) If you call me, I'll answer.

Answer: b) If you mix baking soda and vinegar, it produces a chemical reaction.

87. In the zero conditional, the condition and result can be presented in which order?

- a) Present continuous, if present simple
- b) Past simple, if past continuous
- c) Present simple, if present simple
- d) Future simple, if future perfect

Answer: c) Present simple, if present simple

88. Which of the following is a use of the zero conditional?

- a) To express hypothetical dreams and wishes
- b) To talk about personal opinions
- c) To describe events in a story
- d) To discuss established rules or regulations

Answer: d) To discuss established rules or regulations

89. What does the zero conditional sentence structure convey?

- a) Uncertainty
- b) Hypothetical situations

c) Certainty and facts

d) Future possibilities

Answer: c) Certainty and facts

90. Which sentence demonstrates the correct structure of the zero conditional?

a) If she will eat dinner, she is hungry.

b) If the sun shines, we are going for a picnic.

c) If you will mix red and blue, you get purple.

d) If it rains, we will stay indoors.

Answer: b) If the sun shines, we are going for a picnic.

91. In the zero conditional, what type of situations does it typically address?

a) Unique events

b) Past experiences

c) Universal truths and consistent facts

d) Future possibilities

Answer: c) Universal truths and consistent facts

92. What is the primary purpose of using the zero conditional?

a) To create suspense in storytelling

b) To discuss imaginary scenarios

c) To express certainty about known facts

d) To express personal opinions

Answer: c) To express certainty about known facts

93. Which of the following is an example of a law of nature or physical principle in the zero conditional?

a) If you don't hurry, you'll miss the bus.

b) If you mix oil and water, they don't mix.

c) If I win the lottery, I'll buy a mansion.

d) If he calls me, I'll be surprised.

Answer: b) If you mix oil and water, they don't mix.

94. What can be interchanged with "if" in the zero conditional when discussing routines or habits?

a) "When"

b) "Unless"

c) "Only if"

d) "Although"

Answer: a) "When"

95. Which of the following is NOT a suitable use of the zero conditional?

a) Expressing known facts

b) Discussing consistent truths

c) Speculating about the future

d) Describing scientific laws

Answer: c) Speculating about the future

96. In the zero conditional, the result always follows the condition because it deals with:

a) Hypothetical scenarios

b) Established facts and truths

c) Personal preferences

d) Uncertain possibilities

Answer: b) Established facts and truths

97. Which of the following sentences demonstrates the correct structure for the zero conditional?

a) If the train is late, we'll miss our flight.

b) If we mix red and blue, you get purple.

c) If she would call me, I would be happy.

d) If I had more time, I will travel.

Answer: b) If we mix red and blue, you get purple.

98. What is the basic structure of a First Conditional sentence?

- a) If + past simple, will + base form of the verb
- b) If + present simple, will + base form of the verb
- c) If + future simple, will + base form of the verb
- d) If + present continuous, will + base form of the verb

Answer: b) If + present simple, will + base form of the verb

99. When is the First Conditional used?

- a) To talk about past events
- b) To express hypothetical situations
- c) To discuss real and likely future situations
- d) To state general truths

Answer: c) To discuss real and likely future situations

100. Which of the following sentences is an example of the First Conditional?

- a) If I won the lottery, I would buy a yacht.
- b) If you eat your vegetables, you'll grow strong.
- c) If it snows tomorrow, I would go skiing.
- d) If I have lunch now, I had dinner later.

Answer: b) If you eat your vegetables, you'll grow strong.

101. In the First Conditional, what does the "will" auxiliary verb express?

- a) Past actions
- b) Hypothetical scenarios
- c) Certainty about a future event
- d) Present habits

Answer: c) Certainty about a future event

102. Which of the following is NOT a use of the First Conditional?

- a) Making predictions based on a present condition
- b) Expressing hypothetical wishes
- c) Discussing real and likely future situations
- d) Talking about consequences of present actions

Answer: b) Expressing hypothetical wishes

103. What is the result clause in a First Conditional sentence?

- a) The “if” clause
- b) The subject
- c) The main clause
- d) The conditional clause

Answer: c) The main clause

104. Which of the following sentences correctly follows the First Conditional structure?

- a) If it snows tomorrow, I will went skiing.
- b) If she calls me, I will meeting her later.
- c) If he studies hard, he would pass the exam.
- d) If it rains, I will bring an umbrella.

Answer: d) If it rains, I will bring an umbrella.

105. The First Conditional is primarily used to discuss situations that are:

- a) Past events
- b) Hypothetical and imaginary
- c) Real and likely to happen in the future
- d) Unpredictable

Answer: c) Real and likely to happen in the future

106. In the First Conditional, the “if” clause typically describes a condition in the:

- a) Past

- b) Present
- c) Future
- d) Hypothetical world

Answer: b) Present

107. What is the key purpose of using the First Conditional?

- a) To talk about unreal or imaginary situations
- b) To discuss historical events
- c) To make predictions about future events based on present conditions
- d) To express general truths

Answer: c) To make predictions about future events based on present conditions

108. What is the basic structure of a Second Conditional sentence?

- a) If + past simple, would + base form of the verb
- b) If + present simple, will + base form of the verb
- c) If + future simple, would + base form of the verb
- d) If + past continuous, would + base form of the verb

Answer: a) If + past simple, would + base form of the verb

109. When is the Second Conditional typically used?

- a) To discuss real and likely future situations
- b) To express general truths
- c) To talk about unreal or unlikely situations in the present or future
- d) To make predictions based on a present condition

Answer: c) To talk about unreal or unlikely situations in the present or future

110. Which of the following sentences is an example of the Second Conditional?

- a) If you eat your vegetables, you'll grow strong.
- b) If I won the lottery, I would travel the world.
- c) If it's sunny tomorrow, we'll have a picnic.

d) If I had lunch now, I'll skip dinner.

Answer: b) If I won the lottery, I would travel the world.

111. In the Second Conditional, what does the “would” auxiliary verb express?

- a) Past actions
- b) Certainty about a future event
- c) Unreal or hypothetical situations
- d) Present habits

Answer: c) Unreal or hypothetical situations

112. Which of the following is NOT a common use of the Second Conditional?

- a) Making predictions based on a present condition
- b) Talking about unreal or unlikely situations
- c) Expressing hypothetical wishes
- d) Discussing present or past actions

Answer: a) Making predictions based on a present condition

113. What is the result clause in a Second Conditional sentence?

- a) The “if” clause
- b) The subject
- c) The main clause
- d) The conditional clause

Answer: c) The main clause

114. Which of the following sentences correctly follows the Second Conditional structure?

- a) If it's sunny tomorrow, we'll have a picnic.
- b) If he calls me, I would meet him later.
- c) If I win the race, I will take the prize.
- d) If I were taller, I would reach the top shelf.

Answer: d) If I were taller, I would reach the top shelf.

115. The Second Conditional is primarily used to discuss situations that are:

- a) Past events
- b) Real and likely to happen in the future
- c) Hypothetical and unlikely in the present or future
- d) Unpredictable

Answer: c) Hypothetical and unlikely in the present or future

116. In the Second Conditional, the “if” clause typically describes a condition that is:

- a) Past
- b) Present
- c) Future
- d) Always true

Answer: a) Past

117. What is the key purpose of using the Second Conditional?

- a) To talk about real and likely future events
- b) To express general truths
- c) To discuss unreal or unlikely situations in the present or future
- d) To make predictions about the past

Answer: c) To discuss unreal or unlikely situations in the present or future

118. It is popularly said that any two students are not alike. This implies that they differ in their

- (a) Physical and mental set up
- (b) Aptitude
- (c) Social status
- (d) Attitude

True Answer : Physical and mental set up

119. Which is an application of cognitive approach to motivation?

- (a) Explain the reasons for studying the topic

- (b) Create a supportive classroom climate for students
- (c) Provide clear and prompt feedback on assignments
- (d) Begin lessons with challenging questions and conflicting events

True Answer : Explain the reasons for studying the topic

120. Mr. Oti, a physical education teacher, demonstrates the new skill to be learned so that his students can watch him and later reproduce the skill. What learning theory is associated with the situation?

- (a) Dual-Coding Learning Theory
- (b) Information Processing Theory
- (c) Schema Learning Theory
- (d) Social Learning

True Answer : Social Learning

121. The lowest level of Taxonomy of Educational Objectives of Cognitive Domain given by Bloom is

- (a) Knowledge
- (b) Comprehension
- (c) Application
- (d) Analysis

True Answer : Knowledge

122. Instructional Objectives are useful to

- (a) Teachers
- (b) Students
- (c) Question paper setters
- (d) All the given alternatives

True Answer : All the given alternatives

123. Rita easily remember dates and events in history. What component of long term memory (LTM) does Rita have?

- (a) Creative thinking
- (b) Critical thinking
- (c) Reflective thinking
- (d) Logical thinking

True Answer : Reflective thinking

125. The most important function of a teacher is to

- (a) Facilitate learning
- (b) manage instructional resources
- (c) coordinate curricular activities
- (d) provide information

True Answer : Facilitate learning

126. Which of the following best describes what meaningful learning is?

- (a) When what is to be learned is new and easy for the students
- (b) Materials presented are difficult and challenging to the students
- (c) When the materials to be learned is related to what students already know
- (d) Students find the lessons easy and relevant to what was assigned to them

True Answer : When the materials to be learned is related to what students already know

127. The objectives of a Curriculum are to be stated in terms of

- (a) Students entering behaviour
- (b) Students terminal behaviour
- (c) Teachers behaviour
- (d) Learning process

True Answer : Students terminal behaviour

128. Miss Rita is an excellent Physical Education teacher. She started teaching volleyball to her Grade 2 class. Despite all her efforts, her class does not seem to learn how to play the game. What law of learning was disregarded?

- (a) Law of Disuse

- (b) Law of Effect
- (c) Law of Exercis
- (d) Law of Readiness

True Answer : Law of Readiness

129. Which of the following best describes what meaningful learning is?

- (a) When what is to be learned is new and easyfor the students
- (b) Materials presented are difficult andchallenging to the students
- (c) When the materials to be learned is relatedto what students already know
- (d) Students find the lessons easy and relevant to what was assigned to them

True Answer : When the materials to be learned is related to what students already know

130. Ms. Erika in her Biology class accompanies her discussion with interesting visual aids. She strongly believes that students learn better when lessons are presented with images, real or imagined aside from mere lecture method. Which learning theory does she upholds?

- (a) Dual-Coding Theory
- (b) Information Processing Theory
- (c) Meaningful Reception Learning Theory
- (d) Social Cognitive Theory

True Answer : Dual-Coding Theory

131. Which of the following is not a type of the learned motives?

- (a) Reflexes
- (b) Habits
- (c) Attitude
- (d) Interest

True Answer : Reflexes

132. Patricia is always fearful of freely roaming dogs but does not mind dogs in a pen or on a leash. What feature of classical conditioning is exhibited?

- (a) Discrimination

- (b) Extinction
- (c) Generalization
- (d) Practice

True Answer : Discrimination

133. An Earth Science teacher has just completed a unit on the sun. As she recognizes her next unit on other stars, she uses the sun as a frame of reference. What view of learning was used?

- (a) Discovery learning
- (b) Informative learning
- (c) Meaningful learning
- (d) Transfer learning

True Answer : Meaningful learning

134. Which is an application of cognitive approach to motivation?

- (a) Explain the reasons for studying the topic
- (b) Create a supportive classroom climate for students
- (c) Provide clear and prompt feedback on assignments
- (d) Begin lessons with challenging questions and conflicting events

True Answer : Explain the reasons for studying the topic

135. Of the following learning theories, the one that embodies the idea that the learning takes place through insight is known as

- (a) Gestalt
- (b) Stimulus-Response
- (c) Connectionist
- (d) Pragmatic

True Answer : Gestalt

136. The lowest level of Taxonomy of Educational Objectives of Cognitive Domain given by Bloom is

- (a) Knowledge

- (b) Comprehension
- (c) Application
- (d) Analysis

True Answer : Knowledge

137. In which lesson does a general rule is explained first and then examples are illustrated?

- (a) Deductive lesson
- (b) Inductive lesson
- (c) Cognitive lesson
- (d) Skill lesson

True Answer : Deductive lesson

138. The objectives of a Curriculum are to be stated in terms of

- (a) Students entering behaviour
- (b) Students terminal behaviour
- (c) Teachers behaviour
- (d) Learning process

True Answer : Students terminal behaviour

139. Mr Fiifi wants to use alternative methods of assessment. Which of the following will he not likely use?

- (a) Multiple Choice Test
- (b) Reflective Journal Writing
- (c) Oral Presentation
- (d) Developing Portfolios

True Answer : Multiple Choice Test

140. The minimum number of years for a newly qualified teacher to possess a provisional teacher's license is

- (a) 1 year

- (b) 2 years
- (c) 3 years
- (d) 4 years

True Answer : 3 years

141. The choice of the appropriate format to use in constructing a test is influenced by the

- (a) skills in writing different types of items
- (b) intelligence level of the students
- (c) content that has been taught
- (d) availability of specification table

True Answer : skills in writing different types of items

142. Asamoah is fascinated by his daughter's excitement and determination to learn new things. Thus, he is concerned with her development in which domain?

- (a) Physical
- (b) Socioemotional
- (c) Cognitive
- (d) Sociocultural

True Answer : Socioemotional

143. For classroom teachers, core points are mainly written in a lesson plan to ensure that

- (a) Pupils can get notes to write at the end of the lesson
- (b) The main ideas of the lesson are brought out
- (c) The pupils pay attention during instructions
- (d) All the given alternatives

True Answer : The main ideas of the lesson are brought out

144. All the following are the reasons for introduction of the Teacher Licensing Policy in Ghana except.

- (a) To eliminate non-performing teachers

- (b) To reduce teacher in-take
- (c) To professionalize teaching
- (d) To enforce discipline

True Answer : To reduce teacher in-take

145. Psychologists study the development of individuals across several domains. Which of the following is not one of the domains studied?

- (a) Physical
- (b) Socioemotional
- (c) Cognitive
- (d) Psychodynamic

True Answer : Psychodynamic

146. Which of the following operates on the “stimulus-response principle”, which means all behaviours are caused by external stimuli?

- (a) Contextual theory
- (b) Behaviourist theory
- (c) Cognitive theory
- (d) Constructivist theory

True Answer : Behaviourist theory

147. Under what criterion is the question, ” is this the best way to test for the desired knowledge and skills? ” considered when evaluating a test?

- (a) Practicality
- (b) Clarity
- (c) Fairness
- (d) Efficiency

True Answer : Efficiency

148 . Which of the following bodies or institutions is responsible for licensing teachers in Ghana?

- (a) Teacher Education Division
- (b) Ghana Education Service
- (c) National Teaching Council
- (d) National Teachers Council

True Answer : National Teaching Council

149. Which of the following are the major components of guidance program in schools?

- (a) Educational, vocational, personal, social
- (b) Educational, vocational, counselling
- (c) Educational, vocational, psychological
- (d) Vocational, social, relationship

True Answer : Educational, vocational, personal, social

150. The evaluation approach that measures students actual performance and compares it with the objectives of instruction is called..

- (a) Criterion-referenced evaluation
- (b) Democratic evaluation
- (c) Norm-referenced evaluation
- (d) Bureaucratic evaluation

True Answer : Criterion-referenced evaluation

151. In designing instruction for your class, you must assume that instruction is aimed at the.....

- (a) Individual and not the group
- (b) Group and not the individual
- (c) Academically weak students
- (d) Academically intelligent students

True Answer : Individual and not the group

152. Information may be able to obtain permanence in the memory of pupils when there is a strong activity of the...

- (a) Long term memory
- (b) Sensory memory
- (c) Concrete memory
- (d) Working memory

True Answer : Long term memory

153. Which of the following has no relation to the behaviorist approach to learning?

- (a) Common law applies to humans and animals
- (b) The process of learning is call conditioning
- (c) Humans and animals have similarneurophysiological features
- (d) Learning requires active mental process

True Answer : Learning requires active mental process

154. Which of the following serve as agents to the curriculum implementation process

- (a) Learners
- (b) Doctors
- (c) Ministry of Education
- (d) Teachers

True Answer : Teachers

155. In planning your lesson, it is always important that you start with..

- (a) Anticipatory set
- (b) Modelling
- (c) Objective and purpose
- (d) Guided practice

True Answer : Objective and purpose

156. For school environment to have a good/healthy climate, the teacher must....

- (a) Be strict and unapproachable
- (b) Have concern for general well-being ofpupils

- (c) Have a strong sense of commitment and morality
- (d) Be firm and fair in managing his/her class

True Answer : Be firm and fair in managing his/her class

157. Which of the following is NOT a major focus of educational principles of prominent educational theories

- (a) Learning must be gradual, cumulative and progressive
- (b) Instruction must be presented according to the stages of readiness of pupil
- (c) Pupils must be coerced and forced to learn
- (d) Instruction and learning must follow the order of nature

True Answer : Pupils must be coerced and forced to learn

158. A 3-year old pupil in your class who calls a cat a lion and a hen, a vulture may be identified as..

- (a) Preoperational child with the ability to classify
- (b) Preoperational child with transductive reasoning
- (c) Preoperational child with concrete reasoning
- (d) Formal operational child

True Answer : Preoperational child with transductive reasoning

159. Which of the following is the most appropriate research to conduct as a teacher to improve on your professional practice in the classroom?

- (a) Basic research
- (b) Historic research
- (c) Action research
- (d) Exploratory research

True Answer : Action research

160. Which of the following influenced the military training requirements among students in the secondary and tertiary levels?

- (a) Chinese

- (b) Greeks
- (c) Presbyterians
- (d) Romans

True Answer : Romans

161. Students are more likely to remain focused on goals and persist despite setbacks when they develop a perception that..

- (a) Skills continue to emerge as the individual grows
- (b) Ability can be developed and success is related to effort
- (c) learning is a series of small achievements
- (d) assessment is ongoing and peers are achieving at similar levels

True Answer : Ability can be developed and success is related to effort

162. The Department of Education gives greater emphasis on the development of basic skills. What is the philosophical basis for this?

- (a) Essentialism
- (b) Existentialism
- (c) Perennialism
- (d) Pragmatism

True Answer : Essentialism

163. When administering standardized test for JHS students, the teacher may assist students in which of the following ways?

- (a) Reading several sample items for clarity
- (b) Repeating the scripted directions exactly
- (c) Restating the scripted directions using simple language
- (d) reviewing content using the sample item as a model

True Answer : Repeating the scripted directions exactly

164. Teacher G, a Christian Living teacher, puts so much significance on values development and discipline. What could be her educational philosophy?

- (a) Idealism
- (b) Progressivism
- (c) Pragmatism
- (d) Realism

True Answer : Idealism

165. Which of the following factors in an elementary classroom is likely to contribute most to a loss of instructional time?

- (a) Limited use of assigned seating
- (b) Ineffective transition routines
- (c) Unappealing or worn materials
- (d) Inadequate technological resources

True Answer : Ineffective transition routines

166. A teacher views his students as unique, free-choosing and responsible individuals. All classroom activities revolve around the said premise. What theory underlies this?

- (a) Essentialism
- (b) Existentialism
- (c) Progressivism
- (d) Realism

True Answer : Existentialism

167. A teacher demonstrated the technique on how to group students according to their needs and interests and how to use self-paced instructional materials. Which philosophy is manifested in this activity

- (a) Essentialism
- (b) Progressivism
- (c) Realism
- (d) Social Reconstructionism

True Answer : Progressivism

168. The Progressivists emphasized the individuality of the child. What is the concern of the reconstructionists?

- (a) Experiential learning
- (b) Socialization
- (c) Social problem
- (d) Personal problems

True Answer : Social problem

169. Every first day of the school year, Miss Abrefa prepared activities which will make her primary 2 children, sing, plan, learn and introduce themselves to the class. What process did she emphasize?

- (a) Acculturation
- (b) Enculturation
- (c) Indoctrination
- (d) Socialization

True Answer : Socialization

170. According to reconstructionism, the goal of education is to bring about a new social order. Which practice best manifests this view?

- (a) The class conducts scientific experiments to verify concepts
- (b) The class discusses role models and their impact on society
- (c) The class allowed to engage in divergent thinking
- (d) The class undertakes well-planned projects in the community

True Answer : The class undertakes wellplanned projects in the community

171. Which philosophy approves a teacher who lectures most of the time and requires his students to memorize the rules of grammar?

- (a) Existentialism
- (b) Idealism
- (c) Pragmatism
- (d) Realism

True Answer : Idealism

172. Why should a teacher take the obligation upon himself to study and understand the custom and traditions of the community where he works?

- (a) To change the culture of the community
- (b) To have a sympathetic attitude for the people of the community
- (c) To identify the weaknesses of the culture of the community
- (d) To please the people of the community

True Answer : To have a sympathetic attitude for the people of the community

173. What philosophy is related to the practice of schools acting as laboratory for teaching reforms and experimentation?

- (a) Essentialism
- (b) Existentialism
- (c) Progressivism
- (d) Social Reconstructionism

True Answer : Progressivism

174. Which of the following is not a function of the school?

- (a) Changing cultural practices
- (b) Development of attitudes and skills
- (c) Reproduction of species
- (d) Socialization among children

True Answer : Reproduction of species

175. A teacher who is a recognized expert in carpentry works, taught his students how to prepare and construct good and aesthetic furniture from local resources. What cultural transmission process is this?

- (a) Acculturation
- (b) Enculturation
- (c) Indoctrination

- (d) Observation

True Answer : Enculturation

176. A teacher who believes in the progressivist theory of education would embrace certain reforms on methodology. Which reform would be consistent with this theory?

- (a) Active participation of teachers
- (b) Formal instructional pattern
- (c) Strict external discipline
- (d) Teacher domination of class activities

True Answer : Active participation of teachers

177. Activities planned by school clubs/ organizations show school-community connection geared towards society's needs. What philosophy is related to this?

- (a) Existentialism
- (b) Progressivism
- (c) Realism
- (d) Social Reconstructionism

True Answer : Social Reconstructionism

178. In a school, the pupils were asked which nationality they would prefer if given a choice. Majority of the pupils wanted to be Americans. In this case, in which obligation relative to the state are the schools seemed to be failing?

- (a) Instill allegiance to the constitutional authorities
- (b) Promote national pride
- (c) Promote obedience to the laws of the state
- (d) Respect for all duly constituted authorities

True Answer : Promote national pride

179. Which of the following is the main function of the philosophy of education?

- (a) Reconsider existing educational goals in the light of society's needs
- (b) Provide the academic background prerequisite to learning

- (c) Define the goals and set the direction for which education is to strive
- (d) Aid the learner to build his own personal philosophy

True Answer : Define the goals and set the direction for which education is to strive

180. What philosophy of education advocates that the curriculum should only include universal and unchanging truths?

- (a) Essentialism
- (b) Idealism
- (c) Perennialism
- (d) Pragmatism

True Answer : Perennialism

181. "The greatest happiness lie in the contemplative use of mind", said Plato. Which of the following activities adheres to this?

- (a) Cooperative learning
- (b) Introspection
- (c) Role Playing
- (d) Social Interaction

True Answer : Introspection

182. Which of the statements below best describes development

- (a) A student's height increased by 5'2" to 5'4"
- (b) A student's change in weight from 110lbs to 125lbs
- (c) A student had learned to operate the computer
- (d) A student's enlargement of hips

True Answer : A student had learned to operate the computer

183. Which of the following situation manifests a balance between teachers responsibility and accountability?

- (a) She entertains her students with personal stories until the end of the period
- (b) She spends most of the time on the latest gossips in showbiz

- (c) She teaches as much as she could for duration of the period
- (d) She teaches as well as entertains the students with her personal stories

True Answer : She teaches as much as she could for duration of the period

184. Which philosophy of education influence the singing of the National Anthem in schools?

- (a) Nationalism
- (b) Naturalism
- (c) Pragmatism
- (d) Socialism

True Answer : Nationalism

185. Who among the following believes that learning requires disciplined attention, regular homework, and respect for legitimate authority?

- (a) Essentialist
- (b) Progressivist
- (c) Realist
- (d) Reconstructionist

True Answer : Essentialist

186. Your teacher is of the opinion that the world and everything in it are ever changing and so teaches you the skill to cope with the changes. Which of the following is his governing philosophy?

- (a) Experimentalism
- (b) Existentialism
- (c) Idealism
- (d) Realism

True Answer : Experimentalism

187. Homeroom advisers always emphasize the importance of cleanliness of the body. Children are taught how to wash their hands before and after eating. What is this practice called?

- (a) Folkway

- (b) Laws
- (c) Mores
- (d) Social norm

True Answer : Social norm

188. Dr. Aboagye, the school physician conducted a physical examination in Ms. Felicia's class. What concept best describes the quantitative increase observed by Dr. Aboagye among the pupils in terms of height and weight?

- (a) Development
- (b) Growth
- (c) Learning
- (d) Maturation

True Answer : Growth

189. Madam Agnes, now 69 years old has been observing changes in herself such as the aging process. Which term refers to the development change in her?

- (a) Development
- (b) Growth
- (c) Learning
- (d) Maturation

True Answer : Maturation

190. Which of the following theories can help Miss Enyonam determine the readiness of her learners by administering a readiness test?

- (a) Conditioning Theory
- (b) Cognitive Development Theory
- (c) Maturation Theory
- (d) Ethological Theory

True Answer : Maturation Theory

191. Manuel, a five-year old boy can hold his pen and write his name with his right hand. Which term describes Manuel's behavior?

- (a) Development
- (b) Growth
- (c) Learning
- (d) Maturation

True Answer : Development

192. Opoku develops an integral and coherent sense of self. He seeks answers to the question: "Who am I"? Which of the following is Opoku likely to develop?

- (a) Initiative
- (b) Identity and Role Confusion
- (c) Intimacy
- (d) Autonomy

True Answer : Identity and Role Confusion

193. A newborn infant move his whole body at once, instead of moving a part of it. Which of the following principles is illustrated by the behavior?

- (a) Development proceeds from specific to general
- (b) Development proceeds from general to specific
- (c) Development follows an orderly pattern
- (d) Development follows a general pattern

True Answer : Development proceeds from general to specific

194. Angela focuses her attention on the school work and vigorous play that consume most of her physical energy. Which stage of psycho-sexual theory illustrates her behavior?

- (a) Oral
- (b) Anal
- (c) Phallic
- (d) Latency

True Answer : Latency

195. Which of the following is likely to be developed if infants are shown genuine affection?

- (a) Trust
- (b) Autonomy
- (c) Initiative
- (d) Industry

True Answer : Trust

196. What concept can best describes Kofi's ability to walk without a support at the age of 12 months because of the "internal ripening" that occurred in his muscles, bones and nervous system development?

- (a) Development
- (b) Growth
- (c) Learning
- (d) Maturation

True Answer : Maturation

197. Who presented the notion that certain behavior like thumb-sucking is normal among infants?

- (a) Sigmund Freud
- (b) Erick Ericson
- (c) John Bowlly
- (d) Urie Bronfrenbenner

True Answer : Sigmund Freud

198. Which state of the psycho-sexual theory does young boys experience rivalry with their father for their mother's attention and affection?

- (a) Oral
- (b) Anal
- (c) Phallic
- (d) Latency

True Answer : Phallic

199. What do you call the quantitative increase in terms of height and weight during physical examination of the students?

- (a) Development
- (b) Growth
- (c) Learning
- (d) Maturation

True Answer : Growth

200. Ms. Okai uses images and language to represent and understand her various lessons to preschool learners. What stage in the cognitive theory of development explains this?

- (a) Sensorimotor
- (b) Preoperational
- (c) Concrete operational
- (d) Formal operational

True Answer : Preoperational

201. What level has a four year old learner like Doris reached when she acquired new skills such as putting the same shapes and the same colors together?

- (a) Development
- (b) Maturation
- (c) Zone of Proximal Development
- (d) Learning

True Answer : Zone of Proximal Development

202. Which of the following is the correct order of psycho-sexual stages proposed by Sigmund Freud?

- (a) Oral, anal, phallic, latency, genital
- (b) Anal, oral, phallic, latency, genital
- (c) Oral, anal, genital, latency, phallic
- (d) Anal, oral, genital, latency, phallic

True Answer : Oral, anal, phallic, latency, genital

203. Ama believes that authority is respected. She is now in what particular level in moral development theory of Lawrence Kohlberg?

- (a) Social contract
- (b) Law and order orientation
- (c) Interpersonal concordance
- (d) Universal ethics orientation

True Answer : Social contract

204. In Piaget's Theory of Cognitive Development, which of the following statements would illustrate Edward who is 11 years old?

- (a) Able to see relationships and to reason in the abstract
- (b) Unable to breakdown a whole into separate parts
- (c) Differentiates goals and goal-directed activities
- (d) Experiments with methods to reach goals

True Answer : Able to see relationships and to reason in the abstract

205. Teresa gets jealous whenever she sees her father showing love and affection to her mother. Which of the following is she showing according to Freud?

- (a) Complex
- (b) Phallic
- (c) Electra Complex
- (d) Oedipus Complex

True Answer : Electra Complex

206. Mrs. Gomez conducts research on the psycho-social domain of development. In what particular area of the child's development is Mrs. Gomez most likely to be interested with?

- (a) Perceptual abilities
- (b) Brain-wave patterns
- (c) Emotions
- (d) Use of language

True Answer : Emotions

207. Connie develops concepts necessary for everyday living, builds healthy attitudes towards oneself, and achieve personal independence. These are among the attributes of an individual in what particular stage?

- (a) Infancy and early childhood
- (b) Middle childhood
- (c) Adolescence
- (d) Early adulthood

True Answer : Middle childhood

208. Hyperactivity are considered problematic. How may a teacher help a child who is hyperactive?

- (a) Make him the leader of the class
- (b) Transfer him to another class
- (c) Give him challenging activities that area appropriate to his ability level
- (d) Allow him to spend longer at the playground

True Answer : Give him challenging activities that are appropriate to his ability level

209. Ms. Erika in her Biology class accompanies her discussion with interesting visual aids. She strongly believes that students learn better when lessons are presented with images, real or imagined aside from mere lecture method. Which learning theory does she upholds?

- (a) Dual-Coding Theory
- (b) Information Processing Theory
- (c) Meaningful Reception Learning Theory
- (d) Social Cognitive Theory

True Answer : Dual-Coding Theory

210. Which of the following best describes what meaningful learning is?

- (a) When what is to be learned is new and easy for the students
- (b) Materials presented are difficult and challenging to the students
- (c) When the materials to be learned is related to what students already know
- (d) Students find the lessons easy and relevant to what was assigned to them

True Answer : When the materials to be learned is related to what students already know

211. A music teacher is careful in planning activities for each lesson. He praises liberally and rewards correct answers. What view of learning is exhibited?

- (a) Classical conditioning
- (b) Meaningful learning
- (c) Operant conditioning
- (d) Social learning

True Answer : Operant conditioning

212. An Earth Science teacher has just completed a unit on the sun. As she recognizes her next unit on other stars, she uses the sun as a frame of reference. What view of learning was used?

- (a) Discovery learning
- (b) Informative learning
- (c) Meaningful learning
- (d) Transfer learning

True Answer : Meaningful learning

213. Rita easily remember dates and events in history. What component of long term memory (LTM) does Rita have?

- (a) Creative thinking
- (b) Critical thinking
- (c) Reflective thinking
- (d) Logical thinking

True Answer : Reflective thinking

214. Mr. Oti, a physical education teacher, demonstrates the new skill to be learned so that his students can watch him and later reproduce the skill. What learning theory is associated with the situation?

- (a) Dual-Coding Learning Theory
- (b) Information Processing Theory

- (c) Schema Learning Theory
- (d) Social Learning

True Answer : Social Learning

215. Patricia is always fearful of freely roaming dogs but does not mind dogs in a pen or on a leash. What feature of classical conditioning is exhibited?

- (a) Discrimination
- (b) Extinction
- (c) Generalization
- (d) Practice

True Answer : Discrimination

216. Miss Rita is an excellent Physical Education teacher. She started teaching volleyball to her Grade 2 class. Despite all her efforts, her class does not seem to learn how to play the game. What law of learning was disregarded?

- (a) Law of Disuse
- (b) Law of Effect
- (c) Law of Exercise
- (d) Law of Readiness

True Answer : Law of Readiness

217. Which is an application of cognitive approach to motivation?

- (a) Explain the reasons for studying the topic
- (b) Create a supportive classroom climate for students
- (c) Provide clear and prompt feedback on assignments
- (d) Begin lessons with challenging questions and conflicting events

True Answer : Explain the reasons for studying the topic

218. Which of the theories of learning presents or states that learning skills are hierarchically arranged?

- (a) Cumulative Learning

- (b) Meaningful Learning
- (c) Social Cognitive Learning
- (d) Theory of Instruction

True Answer : Cumulative Learning

219. What is motivation?

- a. A state of rest and relaxation
- b. The driving force behind behavior
- c. A measure of intelligence
- d. A type of external reward

Answer: b. The driving force behind behavior

220. Intrinsic motivation is characterized by:

- a. External rewards
- b. Internal satisfaction or enjoyment
- c. Fear of failure
- d. A desire for power

Answer: b. Internal satisfaction or enjoyment

221. According to Maslow's Hierarchy of Needs, what is the highest-level need?

- a. Physiological needs
- b. Safety needs
- c. Love and belongingness needs
- d. Self-actualization needs

Answer: d. Self-actualization needs

222. Which theory of motivation emphasizes autonomy, competence, and relatedness?

- a. Expectancy-Value Theory
- b. Self-Determination Theory
- c. Goal-Setting Theory

d. Incentive Theory

Answer: b. Self-Determination Theory

223. What type of motivation is driven by the anticipation of external rewards?

a. Intrinsic motivation

b. Extrinsic motivation

c. Achievement motivation

d. Competence motivation

Answer: b. Extrinsic motivation

224. Fear of punishment is an example of:

a. Intrinsic motivation

b. Extrinsic motivation

c. Achievement motivation

d. Growth motivation

Answer: b. Extrinsic motivation

225. What type of motivation is associated with the desire for power and control?

a. Affiliation motivation

b. Power motivation

c. Competence motivation

d. Aesthetic motivation

Answer: b. Power motivation

226. Which type of motivation relates to personal growth and self-improvement?

a. Achievement motivation

b. Affiliation motivation

c. Growth motivation

d. Power motivation

Answer: c. Growth motivation

227. What is the primary motivation for fulfilling basic biological needs like hunger and thirst?

- a. Extrinsic motivation
- b. Intrinsic motivation
- c. Biological motivation
- d. Cognitive motivation

Answer: c. Biological motivation

228. Which type of motivation involves the desire to influence others and have an impact on the environment?

- a. Fear motivation
- b. Achievement motivation
- c. Power motivation
- d. Social motivation

Answer: c. Power motivation

229. What is a key strategy for motivating students in the classroom?

- a. Setting low expectations to avoid stress
- b. Providing vague learning objectives
- c. Establishing clear learning goals
- d. Withholding feedback to build suspense

Answer: c. Establishing clear learning goals

230. Which instructional method is recommended for engaging students in active learning?

- a. Lecture only
- b. Group activities
- c. Multiple-choice tests
- d. Homework assignments

Answer: b. Group activities

231. What should teachers do to foster a positive classroom climate?

- a. Encourage open disagreement and conflicts
- b. Build positive relationships based on mistrust
- c. Create a supportive and inclusive environment
- d. Minimize student interactions

Answer: c. Create a supportive and inclusive environment

232. How can teachers motivate students to set and achieve goals?

- a. Avoid discussing goals altogether
- b. Set low expectations to avoid disappointment
- c. Help students set achievable short-term and long-term goals
- d. Discourage self-assessment and reflection

Answer: c. Help students set achievable short-term and long-term goals

233. What is the primary purpose of offering choices and autonomy in the classroom?

- a. To eliminate all structure and guidance
- b. To increase teacher control
- c. To promote student independence and decision-making
- d. To limit student engagement

Answer: c. To promote student independence and decision-making

234. Which of the following is a key principle of inclusive education?

- a) Segregation
- b) Exclusion
- c) Integration
- d) Acceptance

Answer: d) Acceptance

235. In an inclusive classroom, what does “IEP” stand for?

- a) Individualized Education Plan
- b) Integrated Educational Program
- c) Inclusive Engagement Protocol
- d) Inherent Educational Progress

Answer: a) Individualized Education Plan

236. What is the primary goal of inclusive education?

- a) Isolation of students with disabilities
- b) Uniformity in teaching methods
- c) Promoting diversity and equal opportunities
- d) Reducing the number of students in a classroom

Answer: c) Promoting diversity and equal opportunities

237. How can teachers create an inclusive classroom environment?

- a) By excluding students with disabilities
- b) By ignoring individual learning needs
- c) By fostering a sense of belonging and respect
- d) By maintaining strict discipline at all times

Answer: c) By fostering a sense of belonging and respect

238. What is the term for teaching strategies that accommodate diverse learning needs within an inclusive classroom?

- a) Homogeneity
- b) Differentiation
- c) Segregation
- d) Specialization

Answer: b) Differentiation

239. Which of the following is NOT a benefit of inclusive education for students with disabilities?

- a) Improved social skills
- b) Increased access to the general curriculum
- c) Isolation from peers
- d) Enhanced self-esteem

Answer: c) Isolation from peers

240. What is the role of paraprofessionals in an inclusive classroom?

- a) To lead the class independently
- b) To replace the classroom teacher
- c) To provide support to students with disabilities
- d) To enforce strict discipline

Answer: c) To provide support to students with disabilities

241. In an inclusive classroom, accommodations and modifications are typically provided for:

- a) Only students with disabilities
- b) Only students without disabilities
- c) All students
- d) None of the students

Answer: c) All students

242. Which federal law in the United States mandates that students with disabilities receive a free and appropriate public education in the least restrictive environment?

- a) Individuals with Disabilities Education Act (IDEA)
- b) No Child Left Behind Act (NCLB)
- c) Elementary and Secondary Education Act (ESEA)
- d) Americans with Disabilities Act (ADA)

Answer: a) Individuals with Disabilities Education Act (IDEA)

243. What is the term for grouping students with similar learning needs together for part of the day while still including them in the general classroom for other activities?

- a) Exclusion
- b) Mainstreaming
- c) Segregation
- d) Differentiation

Answer: b) Mainstreaming

244. A student is refusing to participate in inclusive activities. What is the best solution to this challenge?

- A. Ignore the student's reluctance and force them to participate
- B. Provide separate activities for the student with similar resources
- C. Work with the student to understand their concerns and find ways to make the activities more inclusive and accessible
- D. Options A and B

245. When a student with disabilities is reluctant to participate in inclusive activities, what should the first step be?

- a) Ignore their reluctance
- b) Provide separate activities
- c) Involve the student and understand their concerns
- d) Enforce participation through strict rules

Answer: c) Involve the student and understand their concerns

246. What is the term for creating an individualized plan to support a student's participation in inclusive activities?

- a) Segregation
- b) Inclusion
- c) IEP (Individualized Education Plan)
- d) Exclusion

Answer: c) IEP (Individualized Education Plan)

247. Which approach is more effective in addressing behavioral challenges in inclusive classrooms?

- a) Punishment and isolation
- b) Collaborative problem-solving and positive behavior support
- c) Ignoring the behavior
- d) Removing the student from the classroom

Answer: b) Collaborative problem-solving and positive behavior support

248. What is the role of a special education team in addressing challenges in inclusive education?

- a) To isolate students with disabilities
- b) To manage the classroom on their own
- c) To provide support and expertise in meeting students' needs
- d) To enforce strict discipline

Answer: c) To provide support and expertise in meeting students' needs

249. What is the importance of regular communication between general education and special education teachers in an inclusive classroom?

- a) It is unnecessary and time-consuming.
- b) It helps identify students to be excluded from activities.
- c) It promotes collaboration and ensures student needs are met.
- d) It encourages competition between teachers.

Answer: c) It promotes collaboration and ensures student needs are met.

250. When addressing a student's reluctance to participate, what should be the primary focus?

- a) Meeting the teacher's expectations
- b) Isolating the student
- c) Understanding and addressing the student's concerns
- d) Ignoring the student's feelings

Answer: c) Understanding and addressing the student's concerns

251. Which approach fosters a more inclusive classroom environment?

- a) Ignoring diversity and individual needs
- b) Celebrating differences and accommodating diverse needs
- c) Enforcing uniformity in teaching methods
- d) Excluding students with disabilities

Answer: b) Celebrating differences and accommodating diverse needs

252. In an inclusive classroom, what can be done to address challenges related to communication barriers?

- a) Ignore communication difficulties
- b) Provide additional resources only to students with disabilities
- c) Use various communication strategies and tools to facilitate understanding
- d) Isolate students with communication challenges

Answer: c) Use various communication strategies and tools to facilitate understanding

253. What is the primary goal of addressing challenges in inclusive education?

- a) Excluding students with disabilities
- b) Ensuring a uniform learning environment
- c) Maximizing the participation and success of all students
- d) Isolating students with diverse needs

Answer: c) Maximizing the participation and success of all students

254. What should teachers do if they encounter resistance from other students regarding the inclusion of a peer with disabilities?

- a) Exclude the student with disabilities to avoid conflicts
- b) Address and educate students about the importance of inclusion
- c) Ignore the issue to maintain classroom harmony
- d) Punish students who resist inclusion

Answer: b) Address and educate students about the importance of inclusion

255. What is the primary purpose of assessment in lesson planning?

- A. To determine which materials to use
- B. To measure student learning
- C. To provide a summary of previous lessons
- D. To manage classroom behavior

Answer: B. To measure student learning

256. Which of the following is NOT a form of assessment used in lesson planning?

- A. Homework assignments
- B. Classroom discussions
- C. Lesson objectives
- D. Teacher's seating chart

Answer: D. Teacher's seating chart

257. When should formative assessments typically be conducted during a lesson?

- A. At the beginning
- B. In the middle
- C. At the end
- D. Anytime during the lesson

Answer: D. Anytime during the lesson

258. Which type of assessment is used to evaluate student learning at the end of a lesson or unit?

- A. Formative assessment
- B. Diagnostic assessment
- C. Summative assessment
- D. Performance assessment

Answer: C. Summative assessment

259. What is the term for an assessment that is given before instruction begins to determine students' prior knowledge?

- A. Formative assessment
- B. Diagnostic assessment
- C. Summative assessment
- D. Portfolio assessment

Answer: B. Diagnostic assessment

260. Which assessment tool provides a snapshot of what students know and can do at a specific point in time?

- A. Rubric
- B. Standardized test
- C. Anecdotal records
- D. Peer assessment

Answer: B. Standardized test

261. Which of the following is NOT a characteristic of a well-designed assessment?

- A. Reliability
- B. Objectivity
- C. Flexibility
- D. Bias

Answer: D. Bias

262. Which assessment strategy involves students evaluating their own work or the work of their peers?

- A. Self-assessment
- B. Summative assessment
- C. Norm-referenced assessment
- D. Criterion-referenced assessment

Answer: A. Self-assessment

263. What is the primary benefit of using assessment data in lesson planning?

- A. It reduces the need for classroom management.
- B. It helps identify areas where students need additional support.
- C. It eliminates the need for summative assessments.
- D. It speeds up the grading process.

Answer: B. It helps identify areas where students need additional support.

264. Why is it important for teachers to use teaching-learning materials in the classroom?

- a) To replace teacher-led instruction
- b) To enhance engagement and support diverse learning styles
- c) Only as a last resort
- d) To save time

Answer: b) To enhance engagement and support diverse learning styles

265. Can teaching materials completely replace teacher-led instruction?

- a) Yes
- b) No
- c) It depends on the subject
- d) Only for advanced students

Answer: b) No

266. How can teachers determine which teaching materials are suitable for their lessons?

- a) By choosing the most expensive materials
- b) Based on the learning objectives and student needs
- c) By random selection
- d) By asking other teachers

Answer: b) Based on the learning objectives and student needs

267. What role does student engagement play in the selection of teaching materials?

- a) It has no impact on material selection

- b) Student engagement is crucial for effective learning, so materials that engage students are preferred
- c) Engaging materials are only necessary for younger students
- d) Teachers should always prioritize teacher-led instruction over materials

Answer: b) Student engagement is crucial for effective learning, so materials that engage students are preferred

268. Should teachers use teaching materials as a last resort when other methods fail?

- a) Yes, always
- b) No, they should be integrated into the teaching process
- c) Only if the students request it
- d) It depends on the school's policy

Answer: b) No, they should be integrated into the teaching process

269. Can teaching materials help in promoting critical thinking and problem-solving skills?

- a) No, they only provide basic information
- b) Yes, well-designed materials can include activities that encourage critical thinking
- c) Only in advanced courses
- d) Critical thinking is not related to teaching materials

Answer: b) Yes, well-designed materials can include activities that encourage critical thinking

270. What benefits do multimedia and digital teaching materials offer in the classroom?

- a) They are too distracting for students
- b) They enhance visual and auditory learning, making complex concepts more accessible
- c) They are only suitable for younger students
- d) They are more expensive than traditional materials

Answer: b) They enhance visual and auditory learning, making complex concepts more accessible

271. How can teachers adapt teaching materials to meet the diverse needs of their students?

- a) By using the same materials for every lesson

- b) By providing additional resources or alternative assignments
- c) By requiring all students to use the same materials
- d) By avoiding the use of materials altogether

Answer: b) By providing additional resources or alternative assignments

272. Should teachers use the same teaching materials for every lesson?

- a) Yes, it provides consistency
- b) No, variety in teaching materials keeps lessons fresh and appeals to different learning preferences
- c) Only if the school mandates it
- d) It depends on the subject

Answer: b) No, variety in teaching materials keeps lessons fresh and appeals to different learning preferences

273. How can teachers ensure that teaching materials align with their curriculum and standards?

- a) By not worrying about alignment
- b) By reviewing materials against curriculum guidelines and standards
- c) By asking students for their opinion
- d) By using the most popular materials

Answer: b) By reviewing materials against curriculum guidelines and standards

274. What should teachers do if they cannot find suitable teaching materials for a particular topic?

- a) Ignore that topic
- b) Create their own materials, adapt existing ones, or seek out additional resources
- c) Skip the lesson
- d) Ask students to find materials

Answer: b) Create their own materials, adapt existing ones, or seek out additional resources

275. Should teachers seek feedback from students regarding the effectiveness of teaching materials?

- a) No, students' opinions are not important
- b) Yes, student feedback can be valuable in assessing the suitability and impact of teaching materials
- c) Only if the students are struggling
- d) Feedback is only useful for assessments

Answer: b) Yes, student feedback can be valuable in assessing the suitability and impact of teaching materials

276. What strategies can teachers use to ensure that teaching materials remain up-to-date and relevant?

- a) They don't need to worry about it
- b) Regularly review and update materials, seek new resources, and stay informed about advancements in their field
- c) Use the same materials for years
- d) Rely on textbooks exclusively

Answer: b) Regularly review and update materials, seek new resources, and stay informed about advancements in their field

277. Which of the following best defines teaching-learning resources?

- A. Educational institutions
- B. Materials and tools used to facilitate learning (Correct)
- C. Teaching methodologies
- D. Student assessment techniques

278. Which type of teaching-learning resource includes textbooks, online articles, and instructional videos?

- A. Human resources
- B. Traditional resources
- C. Information resources (Correct)
- D. Assessment resources

279. What is the primary goal of teaching-learning resources?

- A. To replace teachers in the classroom
- B. To entertain students during class
- C. To facilitate and enhance learning (Correct)
- D. To evaluate student performance

280. Which of the following is an example of a digital teaching-learning resource?

- A. Whiteboard and markers
- B. Printed worksheets
- C. Interactive educational software (Correct)
- D. Classroom furniture

281. How do teaching-learning resources contribute to personalized learning?

- A. They limit student choices and options.
- B. They provide a one-size-fits-all approach.
- C. They allow students to choose resources that suit their learning styles and preferences (Correct).
- D. They discourage independent learning.

282. Which teaching-learning resource is often used to assess students' understanding of a subject?

- A. Textbooks
- B. Interactive simulations
- C. Quizzes and tests (Correct)
- D. Classroom posters

283. What term describes the process of carefully selecting and organizing teaching-learning resources to meet educational goals?

- A. Resource evaluation
- B. Resource optimization

- C. Resource alignment (Correct)
- D. Resource exclusion

284. Which teaching-learning resource is most suitable for hands-on, experiential learning?

- A. Digital textbooks
- B. Laboratory equipment (Correct)
- C. Online discussion forums
- D. Pre-recorded lectures

285. What is the advantage of open educational resources (OER)?

- A. They are always expensive.
- B. They are not freely available.
- C. They provide free and open access to educational materials (Correct).
- D. They are limited to a specific subject.

286. Which of the following is NOT a factor to consider when evaluating teaching-learning resources?

- A. Cost-effectiveness
- B. Accessibility
- C. Cultural relevance
- D. Number of pages in a textbook (Correct)

287. In the context of teaching-learning resources, what does “scaffolding” refer to?

- A. Building construction in schools
- B. Providing support and guidance to help students learn (Correct)
- C. Using digital resources exclusively
- D. Evaluating educational software

288. Which teaching-learning resource is often used to encourage creativity and self-expression in students?

- A. Standardized tests
- B. Art supplies and materials (Correct)
- C. Online tutorials
- D. Teacher manuals

289. What is the primary purpose of formative assessment resources?

- A. To assign final grades to students
- B. To evaluate students' long-term knowledge
- C. To provide ongoing feedback and inform instruction (Correct)
- D. To measure students' initial understanding

290. Which teaching-learning resource emphasizes interaction and collaboration among students and teachers?

- A. Lecture notes
- B. Individual textbooks
- C. Online discussion forums (Correct)
- D. Multiple-choice quizzes

291. What term describes the practice of tailoring teaching-learning resources to meet the unique needs of each student?

- A. Differentiated instruction (Correct)
- B. Standardization
- C. Resource homogenization
- D. Universal design

LITERACY

1. There two alligators at the edge of the swamp this morning.

- (a) was
- (b) were
- (c) is
- (d) have been

2. Mrs. Abafum teaches in the Akropong School for the

- (a) dead
- (b) deaf
- (c) death
- (d) deafs

3. After graduating, he had to choose a career in business and working for his father.

- (a) among
- (b) between
- (c) for
- (d) from

4. He was posted to the police to deal with administrative issues.

- (a) headquarters
- (b) headquarter
- (c) headquarters'
- (d) headquarter's

5. A teacher referred to a dead person as the departed. This is an example of a/an

- (a) euphemism
- (b) hyperbole
- (c) idiom
- (d) simile

6. This car is not mine but

- (a) your's
- (b) your own
- (c) yours
- (d) yours'

7. Our professor is always saying, "Let's go into that _"

- (a) farther
- (b) father
- (c) feather
- (d) further

8. The Agric students report that if it does not rain today all the crops perish.

- (a) would
- (b) would have to
- (c) will
- (d) may have to

9. Ask them car was run over by the armour car.

- (a) whose
- (b) whom
- (c) who
- (d) whoever

10. The new teacher was expected to arrive yesterday has still not yet come.

- (a) whom
- (b) who
- (c) which
- (d) whose

11. Even though most Christians would prefer the gospel tunes, a lot of them would dance to the music as well.

- (a) foreign
- (b) secular
- (c) circular
- (d) local

12. This is a special program for

- (a) marriage couples
- (b) married couple
- (c) married couples
- (d) marry couples

13. I went home my mother was not there.

- (a) also
- (b) so
- (c) accordingly
- (d) but

14. Be careful, Peter, I can't with your rude manners any more.

- (a) put off
- (b) put on
- (c) put by
- (d) put up

15. the policeman left the cell, the inmates started smoking again.

- (a) As soon as
- (b) No sooner had
- (c) Soon
- (d) Pretty soon

16. I agreed to his marriage proposal

he was not very attractive.

- (a) but
- (b) hence
- (c) although
- (d) when

17. The chief of my village had for more than fifty years before independence.

- (a) reigned
- (b) reined
- (c) ruined
- (d) rained

18. Joseph had constantly the truth in Adelaide's explanation.

- (a) afforded
- (b) arranged
- (c) affirmed
- (d) told

19. The felling of trees and the indiscriminate burning of the forest contributes to environmental

- (a) discrimination
- (b) degradation
- (c) sanitation
- (d) digression

20. There has been some in the media that the price of petroleum products is likely to go up.

- (a) theories
- (b) visions
- (c) speculations
- (d) desires

21. The of the waiter was that we eat fried rice and chicken but since that was very expensive, we were.....with the fried plantain and beans stew.

- (a) recommendation....content
- (b) suggestions....hungry
- (c) interdiction....happy
- (d) relish...okay

22. you like it or not, Akwasi will drive the car today.

- (a) wither
- (b) weather
- (c) whether
- (d) wether

23. Kwofie and his children here to swim yesterday.

- (a) are
- (b) is
- (c) was
- (d) were

24. The police had assured all the teaming fans that they had put in place measures to check at the Accra Sports Stadium.

- (a) spectators.....disturbances
- (b) possible.....alarming
- (c) stringent.....hooliganism

(d) hooliganism.....rioting

25. A baby alligator is usually only seven to nine inches long at birth. An adult, , can grow to lengths from six to sixteen feet.

(a) therefore

(b) however

(c) so

(d) hence

26. snow was too deep for cars and buses to travel on the roads, the schools were closed for one week.

(a) Because

(b) For

(c) Although

(d) So

27. By this time next year, I all my exams.

(a) will take

(b) will have taken

(c) have taken

(d) take

28. The examiners promised that the examinations were going to be very easy ?

(a) Isn't it

(b) Wasn't they

(c) Hadn't she

(d) Didn't they

29. burdens were laid on the altar.

(a) Their

- (b) There
- (c) Dear
- (d) They're

30. he was wealthy man by the time he was 40 years old, he still enjoyed the simple things of life.

- (a) Although
- (b) Since
- (c) Therefore
- (d) Whilst

31. The students came on knees to apologize to the teachers.

- (a) bended
- (b) crooked
- (c) broken
- (d) disguised

32. It was boring film that I fell asleep.

- (a) as
- (b) so
- (c) such
- (d) such a

33. the better team, we lost the match.

- (a) despite being
- (b) despite of being
- (c) although
- (d) despite the fact

34. You to use your mobile so there's no point in leaving it on.

- (a) are allowed
- (b) have
- (c) aren't allowed
- (d) can't

35. They have put speed bumps on the road to accidents.

- (a) prohibit
- (b) prevent
- (c) avoid
- (d) forbid

36. If they next to each other on the plane, they wouldn't have got married.

- (a) hadn't sat
- (b) had sat
- (c) sat
- (d) didn't sit

37. Drive otherwise you'll have an accident.

- (a) more careful
- (b) less carefully
- (c) more carefully
- (d) much more careful

38. She has been of murdering her husband.

- (a) charged
- (b) arrested
- (c) blamed
- (d) accused

39. When I got home, someone the window.

- (a) broke
- (b) brokes
- (c) had broken
- (d) hadn't broken

40. I am fed up this exercise.

- (a) to do
- (b) to doing
- (c) with doing
- (d) for doing

41. Do you know the athlete can lead the team to victory?

- (a) who
- (b) which
- (c) by whom
- (d) whether

42. If I were to go to the moon, I see many things.

- (a) shall
- (b) will
- (c) would
- (d) would have

43. The whole class agreed the suggestion of the teacher.

- (a) for
- (b) to
- (c) about
- (d) on

44. If you had sent the telegram, he here by now.

- (a) would have been
- (b) will have been
- (c) would be
- (d) will be

45. If you trust me, you take my advice.

- (a) will
- (b) would
- (c) will have
- (d) would have

46. If kwesi had run very fast, he first.

- (a) would have been
- (b) will be
- (c) would be
- (d) was

47. The boys football when the teacher arrived.

- (a) would be playing
- (b) would have played
- (c) played
- (d) were playing

48. Mama, I eat this food?

- (a) ought
- (b) will
- (c) may
- (d) might

49. I do not know you, I cannot speak.

- (a) Although
- (b) Since
- (c) However
- (d) Even

50. I do not know the teacher did not turn up for work today.

- (a) what
- (b) how
- (c) why
- (d) although

51. At seven o'clock in the night, the boys agreed that it was dark for them to go out.

- (a) too
- (b) so
- (c) very
- (d) quite

52. Whenever a decision is taken itto be carried out.

- (a) had
- (b) must
- (c) has
- (d) should

53. It is not known whether Esi is the girl in the school.

- (a) tall
- (b) tallest
- (c) taller
- (d) very tall

54. Abena was given a prize for being the best student in class she least deserved it.

- (a) even
- (b) despite
- (c) because
- (d) although

55. The fishermen spent one weeksea until help finally came to them.

- (a) in
- (b) on
- (c) from
- (d) at

56. hockey is one of his best games.

- (a) Playing
- (b) To be playing
- (c) To have played
- (d) By playing

57. Kofi is older than his sister Akosua.

- (a) most
- (b) much
- (c) more
- (d) much more

58. I know that his wife is a good driver.

- (a) very
- (b) so
- (c) too
- (d) quite

59. The workers were so tired..... they decided to rest a little.

- (a) because
- (b) that
- (c) when
- (d) then

60. Philip has been promoted to the next grade in his employment he is a diligent worker.

- (a) though
- (b) but
- (c) because
- (d) so

61. The food became so bad the students refused to eat it.

- (a) that
- (b) which
- (c) but
- (d) yet

62. The two cars which collided are on fire

- (a) who
- (b) whose
- (c) which
- (d) whom

63. I have observed that there isn't in the school on Saturdays.

- (a) no one
- (b) someone
- (c) anyone
- (d) somebody

64. One of the students staying outside the school always late for classes.

- (a) is
- (b) are
- (c) was
- (d) were

65. You believe that you have a stronger team ?

- (a) isn't it
- (b) don't you
- (c) aren't you
- (d) do you

66. Do you remember that some pencils?

- (a) I promised you
- (b) I will promise you
- (c) I promise to you
- (d) I promised them to you

67. John is a friend of and visits them very often.

- (a) him
- (b) theirs
- (c) them
- (d) me

68. It is certain that, that book is.....

- (a) Josephine's
- (b) the Josephine's
- (c) Josephines
- (d) of Josephine's

69. Since his ability was below average, he couldn't fit the next class.

- (a) into
- (b) at
- (c) with
- (d) over

70. Kojo was not promoted because he was not as intelligent his brother.

- (a) than
- (b) as
- (c) such as
- (d) like

71. Football is a entertaining game.

- (a) too
- (b) very
- (c) such
- (d) quite

72. The twin brothers have joined the Army; of them are quite tall.

- (a) neither
- (b) both
- (c) either
- (d) none

73. These two men are the richest people in Ghana.

- (a) in
- (b) out of
- (c) among
- (d) between

74. I live in a house has no supply of water.

- (a) which
- (b) whose
- (c) who
- (d) and which

75. This is the lady car got burned.

- (a) of whom
- (b) of whose
- (c) which
- (d) whose

76. The day is hot to play basketball. (a) so

- (b) very
- (c) quite
- (d) too

77. The book I bought from the shop is very interesting.

- (a) which
- (b) who
- (c) whom
- (d) what

78. Abedi Pele is footballer than his brother.

- (a) the best
- (b) the better of
- (c) a better
- (d) the better

79. The soup is not tasty; “Can you add salt, please?”

- (a) little
- (b) few
- (c) a little
- (d) a few

80. Jim is easily the boy in the whole school.

- (a) taller
- (b) tall
- (c) tallest
- (d) most tall

81. Aba worked hard that she was able to complete her assignment.

- (a) too
- (b) so
- (c) too much
- (d) such

82. “Do you have any handkerchiefs, please?” “Yes, I have ”

- (a) few
- (b) little
- (c) a little
- (d) a few

83. It is hot to go out for a picnic.

- (a) too
- (b) quite
- (c) very

(d) so

84. In Geography we learn that Mount Everest is the mountain in the world.

(a) higher

(b) high

(c) highest

(d) most highest

85. When I got the message, I communicated at once to both the Headmaster the Assistant headmaster about the problem.

(a) and

(b) also

(c) or

(d) with

86. Since he has been dismissed from school, he will not to visit his friends.

(a) dared

(b) dares

(c) dare

(d) daring

87. This wrist-watch which I bought is than yours.

(a) the better

(b) better

(c) the better of

(d) the best

88. He fought well that he easily defeated his opponent.

(a) much

(b) very

- (c) so
- (d) quite

89. Kojo failed in the test, he was given a driving license.

- (a) Even
- (b) Before
- (c) Because
- (d) Although

90. Can you add sugar to the tea, please?

- (a) a few
- (b) a little
- (c) few
- (d) little

91. This car is not mine but

- (a) your's
- (b) your own
- (c) yours
- (d) yours'

92. Nobody thought that the thief would be as to wish to jump over that high wall.

- (a) more foolish
- (b) so foolish
- (c) enough foolish
- (d) much foolish

93. You want to buy a new ball for this game, ?

- (a) don't you
- (b) isn't it

- (c) is it
- (d) do you

94. The report, copies have been made for all students, has been pasted on the Notice Board.

- (a) whose
- (b) which
- (c) that
- (d) of which

95. The Chief advised the villagers that each should make a farm which he could call

- (a) their own
- (b) of his
- (c) his own
- (d) of his own

96. The Agric students report that if it does not rain today all the crops perish.

- (a) would
- (b) would have to
- (c) will
- (d) may have to

97. We must ensure that we do every homework.....

- (a) by ourselves
- (b) ourselves
- (c) ourself
- (d) ourselve's

98. Agnes was anxious the work but she found that she was not strong enough.

- (a) to have done
- (b) doing
- (c) to do
- (d) to be doing

99. Last year, for my hobby, I lawn tennis, but I now play basketball

- (a) use to play
- (b) used to play
- (c) have been used to play
- (d) am used to playing

100. The new teacher was expected to arrive yesterday has still not yet come.

- (a) whom
- (b) who
- (c) which
- (d) whose

101. The teacher _____ completed this chapter.

- A. have
- B. has
- C. is
- D. are

102. Ram and Shyam _____ business partners.

- A. have
- B. has
- C. are
- D. had

103. She _____ her office by 9 a.m. daily.

- A. reach
- B. reaches
- C. reached
- D. reaching

104. Rahul and his friends _____ also invited to the party.

- A. is
- B. was
- C. had
- D. were

105. Neither you nor your sister should _____ to them.

- A. talk
- B. talks
- C. talked
- D. talking

106. Twenty years _____ the minimum age to fill this form.

- A. are
- B. is
- C. has
- D. have

107. A bouquet of flowers _____ required for the event.

- A. are
- B. have
- C. has
- D. is

108. A pair of socks _____ been missing from my wardrobe.

- A. have
- B. has
- C. were
- D. is

109. Much _____ been said in the news reports.

- A. were
- B. have
- C. has
- D. was

110. The information provided to you _____ wrong.

- A. were
- B. was
- C. are
- D. have been

111. The company _____ of its stakeholders.

- A. think
- B. thought
- C. thinks
- D. thinking

112. Either of the two dresses shall _____ good.

- A. looking
- B. look
- C. looks
- D. looked

113. Each and every member _____ to vote.

- A. has
- B. have
- C. having
- D. are

114. A large number of soldiers _____ died for the country.

- A. has
- B. is
- C. are
- D. have

115. Half of the class _____ empty.

- A. were
- B. was
- C. has
- D. have

116. Physics _____ difficult to understand.

- A. were
- B. are
- C. is
- D. have been

117. The quality of food here _____ gone down.

- A. have
- B. has
- C. is
- D. are

118. My mother, along with others, _____ worried.

- A. were
- B. are
- C. have
- D. was

119. She _____ not take a lot of stress.

- A. need
- B. needs
- C. needing
- D. has need

120. None of the candidates _____ responded.

- A. were
- B. have
- C. has
- D. is

121. He _____ cooking in his leisure time.

- A. enjoy
- B. enjoying
- C. enjoys
- D. enjoyed

122. The book 'Management Principles' _____ quite insightful.

- A. are
- B. is
- C. have
- D. has

123. Two dollars _____ a small amount.

- A. are
- B. has
- C. have
- D. is

124. A lot of startups _____ started in the past few years.

- A. is
- B. are
- C. have
- D. has

125. Politics _____ been one of the debatable topics.

- A. is
- B. are
- C. have
- D. has

126. Neither Rishi nor Rhea _____ helpful.

- A. were
- B. was
- C. are
- D. have been

127. A series of seminars _____ conducted.

- A. was
- B. were
- C. are
- D. have

128. All means of communication _____ shut down.

- A. was
- B. has
- C. have
- D. is

129. My glasses _____ nowhere to be found.

- A. is
- B. are
- C. have
- D. has

130. That woman _____ vegetables.

- A. sell
- B. selling
- C. sells
- D. have sold

131. It _____ these papers that I have been looking for.

- A. are
- B. is
- C. were
- D. had

132. The United States of America _____ going to conduct elections soon.

- A. are
- B. is
- C. have
- D. has

133. Ghana _____ all out before we knew it!

- A. was
- B. has
- C. have
- D. were

134. There _____ plenty of space for guests at the venue.

- A. was
- B. were
- C. are
- D. have been

135. Either you or I should _____ the lead.

- A. takes
- B. take
- C. taking
- D. took

136. The jury _____ been unable to decide yet.

- A. were
- B. are
- C. is
- D. has

137. A lot of students _____ to clear this exam.

- A. failing
- B. fails
- C. fail
- D. has failed

138. My applications _____ not been approved.

- A. were
- B. have
- C. are
- D. has

139. The crowd _____ dispersed by the police.

- A. was
- B. were
- C. are
- D. have

140. The ruler and the minister _____ killed.

- A. was
- B. have been
- C. has been
- D. is

141. The government will _____ the order soon.

- A. passed
- B. passes
- C. pass
- C. has passed

142. The poor _____ suffered a lot due to the pandemic.

- A. have
- B. are
- C. is
- D. has

143. The teacher and the students _____ arrived.

- A. has
- B. have
- C. will
- D. are

144. The event _____ earlier than it is schedule.

- A. begin
- B. begins
- D. began
- D. begun

145. Many people _____ registered for the course.

- A. have
- B. has
- C. having
- D. is

146. Two-thirds of the pantry _____ full.

- A. are
- B. were
- C. have
- D. is

147. The timing _____ inappropriate.

- A. were
- B. was
- C. has
- D. have been

148. The package _____ to be carried carefully.

- A. is
- B. are
- C. have
- D. were

149. Joshua, with his members, _____ really well.

- A. sing
- B. singing
- C. have sung
- D. sings

150. We should definitely _____ that lake.

- A. visit
- B. visits
- C. visiting
- D. visited

151. The team _____ made several requests.

- A. have
- B. has
- C. is
- D. are

152. I _____ and he sings.

- A. dances
- B. dancing
- C. dance
- D. danced

153. Neither she nor I _____ involved.

- A. am
- B. are
- C. is
- D. were

154. The men _____ against the popular opinion.

- A. was
- B. were
- C. has
- D. is

155. The lawyer and the assistant _____ together.

- A. enters
- B. has enter
- C. entered
- D. had enter

156. Neither the principal nor the teachers _____ convinced.

- A. are
- B. is
- C. were
- D. have

157. Several attempts _____ been made.

- A. have
- B. has
- C. were
- D. is

158. The army _____ going through its training.

- A. are
- B. have
- C. is
- D. were

159. James _____ invited as the chief guest.

- A. is
- B. are
- C. were
- D. have

160. Both the plans _____ wonderful.

- A. is
- B. are
- C. was
- D. have

161. Everyone _____ been informed about the incident.

- A. have
- B. are
- C. were
- D. has

162. A number of cases _____ reported in the area.

- A. is
- B. have been
- C. was
- D. has

163. The committee _____ varying solutions.

- A. have
- B. has
- C. are
- D. is

164. These set of questions _____ pretty easy.

- A. are
- B. is
- C. was
- D. have

165. She along with her friends _____ taking the exam.

- A. are
- B. were
- C. have
- D. is

166. The panel of judges _____ sentenced him to death.

- A. have
- B. were
- C. has
- D. is

167. They _____ me on my birthday every year.

- A. wished
- B. wish
- C. wishes
- D. wishing

168. He _____ in the race to represent his college.

- A. runs
- B. run
- C. running
- D. have run

169. I have to _____ the conference.

- A. attends
- B. attending
- C. attend
- D. attendance

170. Lisa _____ in charity every month.

- A. contribute
- B. contributing
- C. contributes
- D. have contributed

171. They _____ really supportive.

- A. are
- B. has been
- C. is
- D. was

172. The clouds _____ disappeared.

- A. has
- B. have
- C. were
- D. are

173. _____ the plan been finalised?

- A. Have
- B. Has
- C. Is
- D. Are

174. These indigenous foods _____ great.

- A. is
- B. was
- C. has
- D. are

175. He and they _____ not a part of the wedding.

- A. is
- B. are
- C. was
- D. have

176. This part of the book _____ boring.

- A. is
- B. are
- C. has
- D. have

177. Either of the two candidates _____ eligible.

- A. is
- B. have
- C. are
- D. has been

178. Most of the workers _____ on the strike.

- A. is
- B. have
- C. has
- D. are

179. My neighbourhood _____ very popular.

- A. are
- B. is
- C. were
- D. has

180. Won't you _____ there tomorrow?

- A. goes
- B. going
- C. go
- D. gone

181. The labourers _____ in this factory.

- A. work
- B. works
- C. has work
- D. has worked

182. I _____ to music often.

- A. listens
- B. listen
- C. listening
- D. listened

183. My goals' list _____ pretty long.

- A. has
- B. have
- C. are
- D. is

184. My family _____ quite large.

- A. are
- B. is
- C. has
- D. have

185. According to the news, the shower _____ to take place.

- A. are
- B. is
- C. were
- D. has

186. The library _____ closed.

- A. are
- B. is
- C. were
- D. have

187. The courier _____ arrived.

- A. have
- B. are
- C. were
- D. has

188. These _____ religious rituals.

- A. are
- B. is
- C. have
- D. has

189. Deepak with his friends _____ signed the petition.

- A. has
- B. have
- C. are
- D. is

190. Do you _____ these events?

- A. likes
- B. like
- C. liking
- D. have like

191. The dog and the cat _____ been fed.

- A. has
- B. are
- C. were
- D. have

192. His works _____ appreciable.

- A. are
- B. is
- C. has
- D. have

193. Many a man _____ suffered during partition.

- A. have
- B. has
- C. were
- D. is

194. The chief along with his family _____ involved.

- A. are
- B. has
- C. is
- D. have

195. She shall _____ soon.

- A. come
- B. comes
- C. coming
- D. came

196. Measles _____ a common disease among children.

- A. are
- B. is
- C. were
- D. has

197. The board of directors _____ anxious.

- A. are
- B. have been
- C. has been
- D. were

198. Few applicants _____ backed out.

- A. have
- B. has
- C. were
- D. are

199. Some of the rice _____ still left.

- A. is
- B. are
- C. has
- D. have

200. Public speaking _____ a skill.

- A. are
- B. have
- C. has
- D. is

201. Which of the following sentences demonstrates correct subject-verb agreement?

- a) "The dogs barks loudly."
- b) "The dog bark loudly."
- c) "The dogs bark loudly."
- d) "The dog barks loudly."

Answer: c) "The dogs bark loudly."

202. What is the subject-verb agreement error in the following sentence?

"Neither the teacher nor the students is happy with the test results."

- a) The subject "teacher" should have a plural verb.
- b) The subject "students" should have a singular verb.

- c) The subject “teacher” and “students” should both have singular verbs.
- d) The sentence is correct.

Answer: d) The sentence is correct.

203. Which of the following is a singular indefinite pronoun that takes a singular verb?

- a) “everyone”
- b) “both”
- c) “few”
- d) “several”

Answer: a) “everyone”

204. What is the subject-verb agreement error in the sentence?

“The team of players are practicing diligently.”

- a) The subject “team” should have a singular verb.
- b) The subject “players” should have a plural verb.
- c) The sentence is correct.
- d) Both “team” and “players” should have singular verbs.

Answer: a) The subject “team” should have a singular verb.

205. Which sentence demonstrates correct subject-verb agreement with a collective noun?

- a) “The committee are divided in their opinions.”
- b) “The committee is divided in its opinions.”
- c) “The committee and the members are arguing.”
- d) “The committee was divided in its opinions.”

Answer: b) “The committee is divided in its opinions.”

206. Select the sentence with the correct subject-verb agreement.

- a) “Ten miles are a long distance to run.”

- b) "Ten dollars are the cost of the meal."
- c) "Ten miles is a long distance to run."
- d) "Ten dollars is the cost of the meal."

Answer: d) "Ten dollars is the cost of the meal."

207. Which of the following sentences demonstrates correct subject-verb agreement in a question?

- a) "Is the dogs outside?"
- b) "Is the cat outside?"
- c) "Are the cat outside?"
- d) "Are the dog outside?"

Answer: b) "Is the cat outside?"

208. What is the subject and verb in the sentence: "The cat on the roof is meowing"?

- a) Subject: "The cat"; Verb: "is"
- b) Subject: "The roof"; Verb: "meowing"
- c) Subject: "The cat"; Verb: "meowing"
- d) Subject: "The cats"; Verb: "is"

Answer: a) Subject: "The cat"; Verb: "is"

209. In the sentence "She always _____ to the library," should the blank be filled with a singular or plural verb form? Why?

- a) Singular verb form because "She" is singular.
- b) Plural verb form because "always" indicates multiple actions.
- c) Singular verb form because "library" is singular.
- d) Plural verb form because "She" is plural.

Answer: a) Singular verb form because "She" is singular.

210. Correct the subject-verb agreement error in the sentence: "The team are playing their best, and the coach are proud."

- a) "The team is playing their best, and the coach is proud."

- b) "The team is playing their best, and the coach are proud."
- c) "The team are playing their best, and the coach is proud."
- d) "The team are playing their best, and the coach were proud."

Answer: a) "The team is playing their best, and the coach is proud."

211. In the sentence "Neither the book nor the pen _____ on the desk," should the blank be filled with a singular or plural verb form? Why?

- a) Singular verb form because "Neither" indicates a single entity.
- b) Plural verb form because there are two subjects.
- c) Singular verb form because "pen" is singular.
- d) Plural verb form because "book" and "pen" are both plural.

Answer: a) Singular verb form because "Neither" indicates a single entity.

212. Which sentence demonstrates correct subject-verb agreement?

- a) "The chairs is in the living room."
- b) "The chairs are in the living room."
- c) "The chair is in the living room."
- d) "The chair are in the living room."

Answer: b) "The chairs are in the living room."

213. Identify the subject and verb in the sentence: "The flowers in the garden are blooming beautifully."

- a) Subject: "The flowers"; Verb: "in the garden."
- b) Subject: "The flowers"; Verb: "are blooming."
- c) Subject: "The garden"; Verb: "beautifully."
- d) Subject: "The garden"; Verb: "are blooming."

Answer: b) Subject: "The flowers"; Verb: "are blooming."

214. In the sentence "My dog and cat _____ playing together," which verb form should be used?

- a) "is"

- b) “are”
- c) “were”
- d) “am”

Answer: a) “is”

215. Rewrite the following sentence with correct subject-verb agreement: “Each of the students [has/have] a textbook.”

- a) “Each of the students has a textbook.”
- b) “Each of the students have a textbook.”

Answer: a) “Each of the students has a textbook.”

216. Which of the following sentences has an error in subject-verb agreement?

- a) “The news is always interesting.”
- b) “The team are playing well.”
- c) “The company is hosting a party.”
- d) “The dogs are barking loudly.”

Answer: b) “The team are playing well.”

217. Question: Provide an example of a sentence with a compound subject and a plural verb.

- a) “The cat likes to sleep in the sun.”
- b) “Neither the cat nor the dog likes the vacuum cleaner.”
- c) “The dog is playing fetch.”
- d) “Every day, the birds sing.”

Answer: b) “Neither the cat nor the dog likes the vacuum cleaner.”

218. Which sentence demonstrates correct subject-verb agreement?

- a) “He and she is going to the party.”
- b) “He and she are going to the party.”
- c) “He and she goes to the party.”

Answer: b) “He and she are going to the party.”

219. What type of verb should be used with a singular subject?

- a) Plural verb
- b) Singular verb
- c) Both singular and plural verbs

Answer: b) Singular verb

220. Choose the sentence with the correct subject-verb agreement:

- a) "The team are winning the championship."
- b) "The team is winning the championship."
- c) "The team am winning the championship."

Answer: b) "The team is winning the championship."

221. Which of the following sentences has a subject that expresses a specific amount or portion?

- a) "Half of the cookies are eaten."
- b) "The students are studying for the test."
- c) "He is playing the piano."

Answer: a) "Half of the cookies are eaten."

222. In the sentence "Either the book or the magazines _____ missing," which verb form should be used?

- a) Plural verb
- b) Singular verb
- c) It depends on the context

Answer: b) Singular verb

223. Identify the subject and verb in the sentence: "The birds in the tree are singing loudly."

- a) Subject: "The birds"; Verb: "loudly."
- b) Subject: "The birds"; Verb: "in the tree."
- c) Subject: "The tree"; Verb: "are singing."

Answer: c) Subject: "The tree"; Verb: "are singing."

224. Which sentence has correct subject-verb agreement?

- a) "The children is playing in the park."
- b) "The children are playing in the park."
- c) "The child are playing in the park."

Answer: b) "The children are playing in the park."

225. In the sentence "Each of the books _____ interesting," which verb form should be used?

- a) Singular verb
- b) Plural verb
- c) Both singular and plural verbs are acceptable

Answer: a) Singular verb

226. Which sentence has correct subject-verb agreement?

- a) "Neither the cat nor the dog likes the vacuum cleaner."
- b) "Neither the cat nor the dogs likes the vacuum cleaner."
- c) "Neither the cat or the dog likes the vacuum cleaner."

Answer: a) "Neither the cat nor the dog likes the vacuum cleaner."

227. What is the correct subject-verb agreement in the sentence: "Ten percent of the students _____ absent"?

- a) am
- b) is
- c) are

Answer: c) are

228. Which of the following sentences has correct subject-verb agreement?

- a) "The company is hosting a party."
- b) "The company are hosting a party."
- c) "The company were hosting a party."

Answer: a) "The company is hosting a party."

229. In the sentence "My sister and brother _____ studying for their exams," which verb form should be used?

- a) "is"
- b) "are"
- c) "am"

Answer: b) "are"

230. Choose the sentence with the correct subject-verb agreement:

- a) "The glasses is on the table."
- b) "The glasses are on the table."
- c) "The glass is on the table."

Answer: b) "The glasses are on the table."

231. In the sentence "Everyone in the class _____ their assignment," which verb form should be used?

- a) "is"
- b) "are"
- c) "has"

Answer: a) "is"

232. Which of the following sentences correctly demonstrates the "rule of proximity" in compound subjects connected by "or" or "nor"?

- a) "Either the cat or the dogs is outside."
- b) "Either the cat or the dogs are outside."
- c) "Neither the cat or the dogs is outside."

Answer: b) "Either the cat or the dogs are outside."

233. In the sentence "Two-thirds of the pizza _____ gone," which verb form should be used?

- a) “are”
- b) “is”
- c) “have”

Answer: b) “is”

234. Identify the subject and verb in the sentence: “The movie or the book _____ boring.”

- a) Subject: “The movie”; Verb: “the book.”
- b) Subject: “The movie”; Verb: “boring.”
- c) Subject: “The book”; Verb: “boring.”

Answer: b) Subject: “The movie”; Verb: “boring.”

235. Which sentence demonstrates correct subject-verb agreement?

- a) “All of the information are correct.”
- b) “All of the information is correct.”
- c) “All of the information am correct.”

Answer: b) “All of the information is correct.”

236 : In the sentence “My parents _____ going on vacation,” which verb form should be used?

- a) “is”
- b) “are”
- c) “am”

Answer: b) “are”

237: Choose the sentence with the correct subject-verb agreement:

- a) “The cats and the dogs is playing in the yard.”
- b) “The cats and the dogs are playing in the yard.”
- c) “The cats and the dogs were playing in the yard.”

Answer: b) “The cats and the dogs are playing in the yard.”

238. Identify the prepositional phrase in the following sentence: “The scientist conducted experiments in the laboratory.”

- A) in the
- B) the scientist
- C) experiments
- D) in the laboratory

Answer: D) in the laboratory

239. Choose the correct preposition to complete the sentence:

The research paper delves _____ the complexities of quantum physics.

- A) into
- B) with
- C) upon
- D) in

Answer: A) into

240. Identify the preposition and the object of the preposition in this sentence: “He is fond of classical music.”

- A) fond of
- B) he
- C) classical music
- D) is fond

Answer: A) fond of

241. Select the appropriate preposition to fill in the blank:

The novel is a reflection _____ society in the 19th century.

- A) upon
- B) in
- C) to
- D) by

Answer: A) upon

242. In the sentence, “The meeting has been rescheduled for Monday,” what is the preposition and its object?

- A) for Monday
- B) rescheduled for
- C) meeting has been
- D) the meeting

Answer: A) for Monday

243. Choose the correct preposition to complete the sentence:

She is known ____ her expertise in the field.

- A) as
- B) to
- C) by
- D) for

Answer: D) for

244. Identify the preposition in the following sentence:

The art exhibition features works by contemporary artists.

- A) art
- B) features
- C) by
- D) contemporary artists

Answer: C) by

245. Which preposition correctly fits in the blank?

The new research findings have significant implications ____ the field of medicine.

- A) for
- B) with

C) to

D) on

Answer: D) on

246. Identify the prepositional phrase in the sentence: “The students were excited about the upcoming trip to France.”

A) to France

B) about the upcoming

C) students were

D) the students

Answer: B) about the upcoming

247. Choose the appropriate preposition to complete the sentence:

The success of the project is attributed ____ teamwork and innovation.

A) to

B) with

C) for

D) by

Answer: A) to

248. The proprietor and headmaster of the school at last year’s induction ceremony.

A. was

B. were

C. is

D. are

249. The committee members and the chairperson ____ to attend the conference next week.

A) is

B) are

C) were

D) was

Correct answer: B) are

250. Neither the professor nor the students ____ satisfied with the exam results.

A) is

B) are

C) was

D) were

Correct answer: B) are

251. Each of the candidates ____ given a chance to present their manifesto.

A) is

B) are

C) was

D) were

Correct answer: C) was

252. The team, along with their coach, ____ traveling to the championship game tomorrow.

A) is

B) are

C) was

D) were

Correct answer: A) is

253. Neither the book nor the movie adaptation ____ as compelling as the original story.

A) is

B) are

C) was

D) were

Correct answer: C) was

254. The data collected from the experiment ____ inconclusive.

A) is

B) are

C) were

D) have been

Correct answer: B) are

255. The majority of students in the class ____ prepared for the final exam.

A) is

B) are

C) was

D) were

Correct answer: B) are

256. Each of the research assistants ____ assigned a specific task.

A) is

B) are

C) was

D) were

Correct answer: A) is

257. The committee, along with its chairperson, ____ reviewing the proposals.

A) is

B) are

C) was

D) were

Correct answer: A) is

258. The number of applicants for the scholarship ____ significantly higher this year.

A) is

- B) are
- C) was
- D) were

Correct answer: C) was

259. More than one teacher needed for this academic year.

- A. is
- B. have been
- C. are
- D. has been

Correct answer: is

260. The professor explained the concept ____ great clarity during the lecture.

- A) with
- B) in
- C) on
- D) for

Correct answer: B) in

261. She is known for her ability ____ complex ideas in a simple manner.

- A) explaining
- B) to explain
- C) explain
- D) explained

Correct answer: B) to explain

262. The conference ____ attended by scholars from around the world.

- A) is
- B) has been
- C) had been

D) was

Correct answer: D) was

263. The students ____ for their final exams for weeks.

A) studied

B) have studied

C) studies

D) studying

Correct answer: B) have studied

264. The committee will meet ____ to discuss the proposed changes.

A) tomorrow

B) at tomorrow

C) on tomorrow

D) in tomorrow

Correct answer: A) tomorrow

265. The students answered the questions according they were instructed by their teacher.

A. to

B. as

C. with

D. against

266. A committee has been constituted to look into the matter,?

A. hasn't it

B. haven't they

C. won't it

D. won't they

Correct answer: A) hasn't it

267. The committee members, along with their chairperson, ____ reviewing the proposals.

A) is

B) are

C) has been

D) have been

Correct answer: B) are

268. The new textbook, as well as the supplementary materials, ____ arrived yesterday.

A) has

B) have

C) is

D) are

Correct answer: B) have

269. Each of the students ____ expected to submit their assignments by Friday.

A) is

B) are

C) was

D) were

Correct answer: A) is

270. The number of participants in the conference ____ significantly higher than last year.

A) is

B) are

C) was

D) were

Correct answer: A) is

271. The professor, along with her students, ____ attending the seminar tomorrow.

A) is

- B) are
- C) was
- D) were

Correct answer: A) is

272. She has completed the assignment on time, ____?

- A) doesn't she
- B) hasn't she
- C) has she
- D) is she

Correct answer: B) hasn't she

273. The students didn't attend the lecture, ____?

- A) did they
- B) didn't they
- C) weren't they
- D) weren't there

Correct answer: A) did they

274. They have already started working on the project, ____?

- A) have they
- B) haven't they
- C) do they
- D) don't they

Correct answer: A) have they

275. The seminar was quite informative, ____?

- A) wasn't it
- B) wasn't they
- C) wasn't there

D) was it

Correct answer: A) wasn't it

276. You won't forget to bring your textbook tomorrow, ____?

A) will you

B) won't you

C) do you

D) don't you

Correct answer: A) will you

277. Which of the following sentences contains a subject-verb agreement error?

a. The team of experts were conducting research on climate change.

b. Each of the students have completed their assignments on time.

c. The new policy has been implemented successfully by the government.

d. Neither the teacher nor the students were aware of the changes.

Correct answer: b. Each of the students have completed their assignments on time.

278. Identify the sentence with the correct use of the past perfect tense:

a. By the time they arrived, the movie already starts.

b. She had cooked dinner before her guests arrived.

c. He has finished his homework before dinner.

d. The storm has already begun when we reached home.

Correct answer: b. She had cooked dinner before her guests arrived.

279. Which sentence contains a dangling modifier?

a. Running down the street, the stray dog was finally caught by the animal control officer.

b. After finishing the book, the ending was surprising.

c. Having finished the test, the answers were checked by the students.

d. With a loud crash, the vase broke into pieces.

Correct answer: b. After finishing the book, the ending was surprising.

280. Choose the sentence with the correct use of the subjunctive mood:

- a. If I was you, I would study harder for the exam.
- b. I suggest that he goes to bed early tonight.
- c. It is important that she be present at the meeting.
- d. He acts as if he was the boss of the company.

Correct answer: c. It is important that she be present at the meeting.

281. Identify the sentence with the correct use of the relative pronoun:

- a. The person who won the award was my sister.
- b. This is the house that I grew up in.
- c. She is the one whom I admire the most.
- d. The car which is parked in the driveway belongs to John.

Correct answer: b. This is the house that I grew up in.

282. Identify the sentence with the correct use of the apostrophe:

- a. The dogs collar was missing.
- b. The dogs' collars were missing.
- c. The dog's collars were missing.
- d. The dogs's collars were missing.

Correct answer: b. The dogs' collars were missing.

283. Choose the sentence with the correct subject-verb agreement:

- a. The group of students is going on a field trip.
- b. The group of students are going on a field trip.
- c. The group of students was going on a field trip.
- d. The group of students were going on a field trip.

Correct answer: a. The group of students is going on a field trip.

284. Which sentence uses the past perfect tense correctly?

- a. She had went to the store before it closed.
- b. He has eaten dinner by the time we arrived.
- c. They has already left when I got there.
- d. We has finished our homework before watching TV.

Correct answer: b. He has eaten dinner by the time we arrived.

285. Identify the sentence with the correct use of the gerund:

- a. Swimming is my favorite sport.
- b. To swim is my favorite sport.
- c. Swim is my favorite sport.
- d. Swimming to the beach is my favorite activity.

Correct answer: a. Swimming is my favorite sport.

286. Choose the sentence with the correct use of the comparative form:

- a. This book is more interesting than the first one.
- b. This book is interesting than the first one.
- c. This book is interestinger than the first one.
- d. This book is most interesting than the first one.

Correct answer: a. This book is more interesting than the first one.

287. Identify the sentence with the correct use of the subjunctive mood:

- a. It's essential that he go to the meeting.
- b. It's essential that he goes to the meeting.
- c. It's essential that he will go to the meeting.
- d. It's essential that he is going to the meeting.

Correct answer: a. It's essential that he go to the meeting.

288. Choose the sentence with the correct punctuation:

- a. Sarahs cat is very playful.
- b. Sarah's cat is very playful.

- c. Sarahs' cat is very playful.
- d. Sarahs cats is very playful.

Correct answer: b. Sarah's cat is very playful.

289. Which sentence contains a correctly placed modifier?

- a. He nearly drank all the milk in the fridge.
- b. The children played happily in the park.
- c. She only eats organic food.
- d. The car swiftly drove down the road.

Correct answer: b. The children played happily in the park.

290. Identify the sentence with the correct use of the comparative form:

- a. This book is more interesting than the last one.
- b. This book is interestinger than the last one.
- c. This book is interestinger than the last one.
- d. This book is most interesting than the last one.

Correct answer: a. This book is more interesting than the last one.

291. Choose the sentence with the correct use of the past perfect tense:

- a. She had went to the store before it closed.
- b. He has eaten dinner by the time we arrived.
- c. They has already left when I got there.
- d. We has finished our homework before watching TV.

Correct answer: b. He has eaten dinner by the time we arrived.

292. "Have you met that — next door?" Fill the blank with the correct order of adjectives.

- A. Young, obese, Tamilian, silly boy
- B. Silly, young, obese, Tamilian boy
- C. Obese, young, silly, Tamilian boy

D. Tamilian, silly, young, obese boy

293. Choose the correct sentence which is rearranged from the following words with the correct order of adjectives – (daffodils beautiful fragrant her boyfriend yellow fresh with presented her)

- A. Her boyfriend presented her with fragrant, fresh, beautiful, yellow daffodils.
- B. Her boyfriend presented her with beautiful fresh, fragrant, yellow daffodils.
- C. Her boyfriend presented her with fresh, fragrant, beautiful, yellow daffodils.
- D. All of the above.

294. Choose the description with the correct order of adjectives.

- A. Stone, white, beautiful, tiny cottage.
- B. Tiny, stone, white, beautiful cottage.
- C. Tiny, beautiful, stone, white cottage.
- D. Beautiful, tiny, white, stone cottage.

295. Choose the correct sentence which is rearranged from the following words with the correct order of adjectives – a wise imprisoned witch Indian old mean a old man

- A. Imprisoned a wise, old man a mean, old, Indian witch.
- B. A wise, old man a mean, old, Indian witch imprisoned.
- C. A mean, old, Indian witch, a wise, old man imprisoned.
- D. A mean, old, Indian witch imprisoned a wise, old man.

297. Choose the correct sentence which is rearranged from the following words with the correct order of adjectives – has Ayesha long hair black straight

- A. Ayesha has long, straight, black hair.
- B. Long, straight, black hair has Ayesha.
- C. Long, straight, black hair Ayesha has.
- D. Ayesha long, straight, black hair has.

298. Choose the description with the correct order of adjectives.

- A. New, huge, wooden, sailing ship.

- B. New, wooden, sailing, huge ship.
- C. Wooden, new, sailing, huge ship.
- D. Wooden, huge, new, sailing ship.

299. "He loves that — car belonging to his neighbour." Fill the blank with the correct order of adjectives.

- A. green, antique, old, big
- B. antique, green, old, big
- C. old, antique, green, big
- D. big, old, green, antique

300. "Mustaq likes — furniture." Fill the blank with the correct order of adjectives.

- A. Italian, black, leather
- B. leather, Italian, black
- C. black, Italian, leather
- D. Italian, leather, black

301. Choose the correct sentence which is rearranged from the following words with the correct order of adjectives – video game new friend my has an exciting

- A. An exciting, new video game has my friend.
- B. An exciting, new video game my friend has.
- C. My friend has an exciting, new video game.
- D. An exciting, new video game has friend my.

302. Choose the correct sentence which is rearranged from the following words with the correct order of adjectives – eyes black my has dog ugly small friend's

- A. My friend's dog has ugly, small, black eyes.
- B. My friend's dog has black, small, ugly eyes.
- C. Ugly, small, black eyes my friend's dog has.
- D. Ugly, small, black eyes has my friend's dog.

303. Choose the answer that matches the definition and contains all the adjectives in the correct order.

Someone is wearing a pair of boots that were originally used by Red Army soldiers while they were on active service beyond the Arctic Circle.

- A. Sturdy black knee-length Red Army Arctic marching boots
- B. Sturdy Arctic knee-length Red Army marching black boots
- C. Black Red Army sturdy marching Arctic knee-length boots
- D. Red Army sturdy black Arctic marching knee-length boots

304. Choose the answer that matches the definition and contains all the adjectives in the correct order.

A friend has come back from Italy, where she took a picture of some small, historical dwelling-houses which she felt were particularly pretty.

- A. Little stone quaint old cottages
- B. Quaint little old stone cottages
- C. Quaint stone old little cottages
- D. Old stone little quaint cottages

305. Choose the answer that matches the definition and contains all the adjectives in the correct order.

A man has walked into the room with a very eye-catching tie round his neck, which might be described as ...

- A. An ultra-wide 1970s-style multi-coloured truly abominable necktie
- B. A 1970s-style truly abominable ultra-wide multi-coloured necktie
- C. An ultra-wide truly abominable 1970s-style multi-coloured necktie
- D. A truly abominable multi-coloured 1970's-style ultra-wide necktie

306. Choose the answer that matches the definition and contains all the adjectives in the correct order.

You are sorting out all the old items in your kitchen (or loft, or garage), and decide that you can eventually throw away ...

- A. That Danish heavy old horrible frying pan
- B. That horrible old heavy Danish frying pan

- C. That Danish frying old horrible heavy pan
- D. That old Danish heavy frying horrible pan

307. Choose the answer that matches the definition and contains all the adjectives in the correct order.

During a television commercial for a re-launched brand of shampoo, your eye is caught as the model twists ...

- A. her strawberry blonde flowing luxuriant long hair
- B. her luxuriant, long, flowing strawberry blonde hair
- C. her blonde long strawberry flowing luxuriant hair
- D. her strawberry luxuriant long blonde flowing hair

308. Choose the answer that matches the definition and contains all the adjectives in the correct order.

My flatmate arrived home yesterday carrying ...

- A. a smart new bright green environmentally friendly hessian shopping bag
- B. a bright green smart new shopping environmentally friendly hessian bag
- C. an environmentally friendly shopping smart bright green hessian new bag
- D. an environmentally friendly new hessian shopping bright green smart bag

309. Choose the answer that matches the definition and contains all the adjectives in the correct order.

One of her recurring bad memories of school, was of spending hour upon hour sitting on ...

- A. uncomfortable stacking mass-produced nasty plastic chairs
- B. nasty stacking mass-produced plastic uncomfortable chairs
- C. nasty uncomfortable mass-produced plastic stacking chairs
- D. uncomfortable stacking mass-produced plastic nasty chairs

310. Choose the answer that matches the definition and contains all the adjectives in the correct order.

Her uncle has been in the fruit-farming business all his life, and is now the proud owner of ...

- A. a long-established Kentish profitable apple and relatively charming orchard
- B. a long-established Kentish relatively charming and profitable apple orchard
- C. a charming and relatively profitable Kentish long-established apple orchard
- D. a charming, long-established and relatively profitable Kentish apple orchard

311. Choose the answer that matches the definition and contains all the adjectives in the correct order.

The couple next door came back from the city recently, full of enthusiasm after enjoying a concert given by ...

- A. a young exciting European talented string orchestra
- B. an exciting European young string talented orchestra
- C. an exciting and talented young European string orchestra
- D. a talented European exciting string young orchestra

312. Choose the answer that matches the definition and contains all the adjectives in the correct order.

My little brother came into my bedroom last night ~ frightened by a bad dream in which, he said, he was being chased by a ...

- A. stonking great hairy five-armed man-eating alien monster!
- B. five-armed man-eating great hairy alien stonking monster!
- C. man-eating great alien hairy five-armed stonking monster!
- D. great five-armed hairy stonking alien man-eating monster!

313. In the following four sentences identify the one that is the correct usage of the two adjectives, Fat and Thin.

- A. The boy fat hit the boy thin.
- B. The fat boy hit the thin boy.
- C. Boy the fat hit thin the boy.
- D. The boy fat thin hit the boy.

314. In the following four sentences identify the one that is the correct usage of the two adjectives, Black and Best.

- A. My friend best has shoes black.
- B. Best my friend has shoes black.
- C. Black my friend shoes best.
- D. My best friend has black shoes.

315. In the following four sentences identify the one that is the correct usage of the three adjectives, Shiny, Flat and Great.

- A. The car shiny travelled on the road flat at speed great.
- B. The shiny car travelled on the flat road at great speed.
- C. Car the shiny travelled on road the flat at speed great.
- D. The great road travelled car shiny on the flat at speed.

316. In the following four sentences identify the one that is the correct usage of the two adjectives, Small and Broken.

- A. The child small was crying as he had a toy broken.
- B. The small child was crying as he had a broken toy.
- C. The child was crying as small broken had toy.
- D. The crying was child as toy he had broken small.

317. In the following four sentences identify the one that is the correct usage of the three adjectives, Smart, Straight and Bright.

- A. The smart soldiers were standing in a straight line on a bright day.
- B. The soldiers a smart were a straight standing line on a day bright.
- C. Straight a standing the soldiers in line were smart on a day bright.
- D. Standing a soldiers a line straight on bright a day smart were in.

318. In the following four sentences identify the one that is the correct usage of the adjective, Yellow.

- A. I hailed the yellow taxi.
- B. I hailed the taxi yellow.
- C. Taxi yellow I hailed.

D. Hailed yellow I taxi.

319. In the following four sentences identify the one that is the correct usage of the adjective, Angry.

- A. I have father an angry.
- B. I have an angry father.
- C. I angry an father have.
- D. Father an angry I have.

320. In the following four sentences identify the one that is the correct usage of the three adjectives, Poor, Sharp and Black.

- A. He attacked the bystander poor with a knife sharp to steal the purse black.
- B. He poor attacked the bystander with a knife black to steal the purse sharp.
- C. He attacked the poor bystander with a sharp knife to steal the black purse.
- D. He attacked the poor purse with a sharp knife to steal the bystander black.

321. In the following four sentences identify the one that is the correct usage of the three adjectives, Fast, Wet and Unlucky.

- A. The wet motorbike slipped on the fast road and the unlucky rider was hurt.
- B. The fast motorbike slipped on the unlucky road and the wet rider was hurt.
- C. The fast motorbike slipped on the wet road and the unlucky rider was hurt.
- D. The unlucky motorbike slipped on the fast road and the wet rider was hurt.

322. In the following four sentences identify the one that is the correct usage of the three adjectives, Full, Young and Healthy.

- A. Drinking milk a glass of full makes Satish a boy healthy everyday young.
- B. Milk drinking a glass full everyday makes a boy of Satish young healthy.
- C. Healthy a young boy makes a Satish everyday drinking milk of glass full.
- D. Drinking a full glass of milk everyday makes young Satish a healthy boy.

323. “Did you see ANY person come on this road?” “No, I saw NO one come here.” – Which type of adjectives are the words in capitals?

- A. An adjective that modifies the pronoun.
- B. Indefinite Adjective.
- C. Demonstrative Adjective.
- D. Possessive Adjective.

324. “The BRAVE few fought the war.” – Which type of adjective is the word in capitals?

- A. An adjective that modifies the pronoun.
- B. Indefinite Adjective.
- C. Demonstrative Adjective.
- D. Possessive Adjective.

325. “If he sees THAT burglar again, he will call the police.” – Which type of adjective is the word in capitals?

- A. An adjective that modifies the pronoun.
- B. Indefinite Adjective.
- C. Demonstrative Adjective.
- D. Possessive Adjective.

326. “Can you see THAT plane?” – Which type of adjective is the word in capitals?

- A. An adjective that modifies the pronoun.
- B. Indefinite Adjective.
- C. Demonstrative Adjective.
- D. Possessive Adjective.

327. “I have seen SOME biscuits in the box.” – Which type of adjective is the word in capitals?

- A. An adjective that modifies the pronoun.
- B. Indefinite Adjective.
- C. Demonstrative Adjective.

D. Possessive Adjective.

328. “In the last FEW days, SEVERAL animals were shot by MANY poachers.” – Which type of adjectives are the words in capitals?

A. An adjective that modifies the pronoun.

B. Indefinite Adjective.

C. Demonstrative Adjective.

D. Possessive Adjective.

329. “Dog collars will be given to THOSE dogs that are trained.” – Which type of adjective is the word in capitals?

A. An adjective that modifies the pronoun.

B. Indefinite Adjective.

C. Demonstrative Adjective.

D. Possessive Adjective.

330. “He was asked to take possession of MY cycle.” – Which type of adjective is the word in capitals?

A. An adjective that modifies the pronoun.

B. Indefinite Adjective.

C. Demonstrative Adjective.

D. Possessive Adjective.

331. “The students were caught cheating and the teacher confiscated THEIR answer papers.” – Which type of adjective is the word in capitals?

A. An adjective that modifies the pronoun.

B. Indefinite Adjective.

C. Demonstrative Adjective.

D. Possessive Adjective.

332. “He was asked to spot the car that crashed and he identified the RED one.” – Which type of adjective is the word in capitals?

- A. An adjective that modifies the pronoun.
- B. Indefinite Adjective.
- C. Demonstrative Adjective.
- D. Possessive Adjective.

333."In the last FEW days, SEVERAL animals were shot by MANY poachers."- Which type of adjectives are the words in capitals?

- A. An adjective that modifies the pronoun.
- B. Indefinite Adjective.
- C. Demonstrative Adjective.
- D. Possessive Adjective.

Answer: B.

334."I have seen SOME biscuits in the box."- Which type of adjective is the word in capitals?

- A. An adjective that modifies the pronoun.
- B. Indefinite Adjective.
- C. Demonstrative Adjective.
- D. Possessive Adjective.

Answer: B.

335."If he sees THAT burglar again, he will call the police."- Which type of adjective is the word in capitals?

- A. An adjective that modifies the pronoun.
- B. Indefinite Adjective.
- C. Demonstrative Adjective.
- D. Possessive Adjective.

Answer: C.

336."He was asked to take possession of MY cycle."- Which type of adjective is the word in capitals?

- A. An adjective that modifies the pronoun.

- B. Indefinite Adjective.
- C. Demonstrative Adjective.
- D. Possessive Adjective.

Answer: D.

337. "Can you see THAT plane?" – Which type of adjective is the word in capitals?

- A. An adjective that modifies the pronoun.
- B. Indefinite Adjective.
- C. Demonstrative Adjective.
- D. Possessive Adjective.

Answer: C.

338. "The BRAVE few fought the war." - Which type of adjective is the word in capitals?

- A. An adjective that modifies the pronoun.
- B. Indefinite Adjective.
- C. Demonstrative Adjective.
- D. Possessive Adjective.

Answer: C.

339. "Did you see ANY person come on this road?" "No, I saw NO one come here." - Which type of adjectives are the words in capitals?

- A. An adjective that modifies the pronoun.
- B. Indefinite Adjective.
- C. Demonstrative Adjective.
- D. Possessive Adjective.

Answer: B.

340. "He was asked to spot the car that crashed and he identified the RED one." - Which type of adjective is the word in capitals?

- A. An adjective that modifies the pronoun.

- B. Indefinite Adjective.
- C. Demonstrative Adjective.
- D. Possessive Adjective.

Answer: D.

341. "The students were caught cheating and the teacher confiscated THEIR answer papers." - Which type of adjective is the word in capitals?

- A. An adjective that modifies the pronoun.
- B. Indefinite Adjective.
- C. Demonstrative Adjective.
- D. Possessive Adjective.

Answer: D.

342. "Dog collars will be given to THOSE dogs that are trained." - Which type of adjective is the word in capitals?

- A. An adjective that modifies the pronoun.
- B. Indefinite Adjective.
- C. Demonstrative Adjective.
- D. Possessive Adjective.

Answer: C.

NUMERACY

1. Bonnie has twice as many cousins as Robert. George has 5 cousins, which is 11 less than Bonnie has. How many cousins does Robert have?
 - a. 17
 - b. 21
 - c. 4
 - d. 8

2. Oscar sold 2 glasses of milk for every 5 sodas he sold. If he sold 10 glasses of milk, how many sodas did he sell?
 - a. 45
 - b. 20
 - c. 25
 - d. 10

3. Justin earned scores of 85, 92, and 95 on his science tests. What does he need to earn on his next science test to have an average (arithmetic mean) of 93%?
 - a. 93
 - b. 100
 - c. 85
 - d. 96

4. Brad's class collected 320 cans of food. They boxed them in boxes of 40 cans each. How many boxes did they need?
 - a. 280
 - b. 10
 - c. 8
 - d. 5

5. Joey participated in a dance-a-thon. His team started dancing at 10 A.M. on Friday and stopped at 6 P.M. on Saturday. How many hours did Joey's team dance?

- a. 52
- b. 56
- c. 30
- d. 32

6. Which expression has an answer of 18?

- a. $2 \times 5 + 4$
- b. $2 \times (4 + 5)$
- c. $5 \times (2 + 4)$
- d. $4 \times 2 + 5$

7. Callie's grandmother pledged \$0.50 for every mile Callie walked in her walk-a-thon. Callie walked 9 miles. How much does her grandmother owe?

- a. \$4.50
- b. \$18.00
- c. \$5.00
- d. \$9.00

8. What is the square root of 36?

- a. 12
- b. 72
- c. 18
- d. 6

9. Mr. Brown plowed 6 acres in 1 hour. At this rate, how long will it take him to plow 21 acres?

- a. 3 hours
- b. 4 hours
- c. 3.5 hours
- d. 4.75 hours

10. What is the prime factorization of 84?

- a. 42×2
- b. $2 \times 2 \times 4 \times 6$
- c. $2 \times 7 \times 6$
- d. $2 \times 2 \times 3 \times 7$

11. What is 2 Superscript 5?

- a. 10
- b. 15
- c. 32
- d. 16

12. The low temperature in Anchorage, Alaska today was -4°F . The low temperature in Los Angeles, California was 63°F . What is the difference in the two low temperatures?

- a. 59°
- b. 67°
- c. 57°
- d. 14°

13. The Robin's Nest Nursing Home had a fundraising goal of \$9,500. By the end of the fundraiser, they had exceeded their goal by \$2,100. How much did they raise?

- a. \$7,400
- b. \$13,600
- c. \$10,600
- d. \$11,600

14. Mount Everest is 29,028 ft high. Mount Kilimanjaro is 19,340 ft high. How much taller is Mount Everest?

- a. 9,688 feet
- b. 10,328 feet
- c. 11,347 feet

d. 6,288 feet

15. The area of a square is 64 cm^2 . What is the length of one side of the square?

a. 8 cm

b. 16 cm

c. 32 cm

d. 24 cm

16. Mrs. Farrell's class has 26 students. Only 21 were present on Monday. How many were absent?

a. 15

b. 5

c. 4

d. 16

17. Lucy's youth group raised \$1,569 for charity. They decided to split the money evenly among 3 charities. How much will each charity receive?

a. \$784.50

b. \$423.00

c. \$523.00

d. \$341.00

18. Jason made 10 two-point baskets and 2 three-point baskets in Friday's basketball game. He did not score any other points. How many points did he score?

a. 22

b. 12

c. 24

d. 26

19. Jeff left Hartford at 2:15 P.M. and arrived in Boston at 4:45 P.M. How long did the drive take him?

- a. 2.5 hours
- b. 2.3 hours
- c. 3.25 hours
- d. 2.75 hours

20. Shane rolls a die numbered 1 through 6. What is the probability Shane rolls a 5?

- a. $\frac{5}{6}$
- b. $\frac{1}{6}$
- c. $\frac{1}{5}$
- d. $\frac{1}{2}$

21. Susan traveled 114 miles in 2 hours. If she keeps going at the same rate, how long will it take her to go the remaining 285 miles of her trip?

- a. 5 hours
- b. 3 hours
- c. 7 hours
- d. 4 hours

22. A flight from Pittsburgh to Los Angeles took 5 hours and covered 3,060 miles. What was the plane's average speed?

- a. 545 mph
- b. 615 mph
- c. 515 mph
- d. 612 mph

23. Larry purchased 3 pairs of pants for \$24 each and 5 shirts for \$18 each. How much did Larry spend?

- a. \$42
- b. \$72
- c. \$162
- d. \$186

24. How many square centimeters are in one square meter?

- a. 100 sq cm
- b. 10,000 sq cm
- c. 144 sq cm
- d. 100,000 sq cm

25. Raul's bedroom is 4 yards long. How many inches long is the bedroom?

- a. 144 inches
- b. 48 inches
- c. 400 inches
- d. 4,000 inches

26. Jeff burns 500 calories per hour bicycling. How long will he have to ride to burn 750 calories?

- a. 3 hours
- b. 2 hours
- c. 1.5 hours
- d. .5 hour

27. The temperature at 6 P.M. was 31°F . By midnight, it had dropped 40°F . What was the temperature at midnight?

- a. 9°F
- b. -9°F
- c. -11°F
- d. 0°F

28. The total ticket sales for a soccer game were \$1,260; 210 tickets were purchased. If all the tickets are the same price, what was the cost of a ticket?

- a. \$6.00
- b. \$3.50
- c. \$10.00

d. \$7.50

29. Sherman took his pulse for 10 seconds and counted 11 beats. What is Sherman's pulse rate in beats per minute?

- a. 210 beats per minute
- b. 110 beats per minute
- c. 66 beats per minute
- d. 84 beats per minute

30. Jennifer flipped a coin three times and got heads each time. What is the probability that she gets heads on the next flip?

- a. 1
- b. $\frac{1}{16}$
- c. $\frac{1}{2}$
- d. 0

31. Jody's English quiz scores are 56, 93, 72, 89, and 87. What is the median of her scores?

- a. 72
- b. 87
- c. 56
- d. 85.6

32. What is the greatest common factor of 24 and 64?

- a. 8
- b. 4
- c. 12
- d. 36

33. Twelve coworkers go out for lunch together and order three pizzas. Each pizza is cut into eight slices. If each person gets the same number of slices, how many slices will each person get?

- a. 4
- b. 3
- c. 5
- d. 2

34. Marvin is helping his teachers plan a field trip. There are 125 people going on the field trip and each school bus holds 48 people. What is the minimum number of school buses they will need to reserve for the trip?

- a. 3
- b. 2
- c. 4
- d. 5

35. Which number in the answer choices below is not equivalent to the other numbers?

- a. 0.6
- b. 60%
- c. $\frac{3}{5}$
- d. 6%

36. Lance has 70 cents, Margaret has three-fourths of a dollar, Guy has two quarters and a dime, and Bill has six dimes. Who has the most money?

- a. Lance
- b. Margaret
- c. Guy
- d. Bill

37. The students at Norton School were asked to name their favourite type of pet. Of the 430 students surveyed, 258 said that their favourite type of pet was a dog. Suppose that only 100 students were surveyed, with similar results, about how many students would say that a dog is their favourite type of pet?

- a. 58
- b. 60

c. 72

d. 46

38. A group of five friends went out to lunch. The total bill for the lunch was \$53.75. Their meals all cost about the same, so they wanted to split the bill evenly. Without considering tip, how much should each friend pay?

a. \$11.25

b. \$12.85

c. \$10.75

d. \$11.50

39. The value of a computer is depreciated over five years for tax purposes (meaning that at the end of five years, the computer is worth \$0). If a business paid \$2,100 for a computer, how much will it have depreciated after 2 years?

a. \$420

b. \$1,050

c. \$820

d. \$840

40. Steve earned a 96% on his first math test, a 74% on his second test, and an 85% on his third test. What is his test average?

a. 91%

b. 85%

c. 87%

d. 82%

41. A national park keeps track of how many people per car enter the park. Today, 57 cars had 4 people, 61 cars had 2 people, 9 cars had 1 person, and 5 cars had 5 people. What is the average number of people per car? Round to the nearest person.

a. 2

b. 3

c. 4

d. 5

42. A large pipe dispenses 750 gallons of water in 50 seconds. At this rate, how long will it take to dispense 330 gallons?

a. 14 seconds

b. 33 seconds

c. 22 seconds

d. 27 seconds

43. The light on a lighthouse blinks 45 times a minute. How long will it take the light to blink 405 times?

a. 11 minutes

b. 4 minutes

c. 9 minutes

d. 6 minutes

44. A die is rolled and a coin is tossed. What is the probability that a 3 will be rolled and a tail tossed?

a. $\frac{1}{2}$

b. $\frac{1}{6}$

c. $\frac{1}{12}$

d. $\frac{1}{8}$

45. Wendy has 5 pairs of pants and 8 shirts. How many different combinations can she make with these items?

a. 13

b. 24

c. 40

d. 21

46. Audrey measured the width of her dining room in inches. It is 150 inches. How many feet wide is her dining room?

- a. 12 feet
- b. 9 feet
- c. 12.5 feet
- d. 10.5 feet

47. Sharon wants to make 25 half-cup servings of soup. How many ounces of soup does she need?

- a. 100 ounces
- b. 250 ounces
- c. 200 ounces
- d. 6.25 ounces

48. Justin weighed 8 lb 12 oz when he was born. At his two-week check-up, he had gained 8 ounces. What was his weight in pounds and ounces?

- a. 9 lb
- b. 8 lb 15 oz
- c. 9 lb 4 oz
- d. 10 lb 2 oz

49. One inch equals 2.54 centimeters. The dimensions of a table made in Europe are 85 cm wide by 120 cm long. What is the width of the table in inches? Round to the nearest tenth of an inch.

- a. 30 inches
- b. 215.9 inches
- c. 33.5 inches
- d. 47.2 inches

50. A bag contains 3 red, 6 blue, 5 purple, and 2 orange marbles. One marble is selected at random. What is the probability that the marble chosen is blue?

- a. $\frac{4}{13}$

- b. $\frac{3}{8}$
- c. $\frac{3}{16}$
- d. $\frac{3}{5}$

51. The operator of an amusement park game kept track of how many tries it took participants to win the game. The following is the data from the first ten people: 2, 6, 3, 4, 6, 2, 8, 4, 3, 5 What is the median number of tries it took these participants to win the game?

- a. 8
- b. 6
- c. 4
- d. 2

52. Max goes to the gym every fourth day. Ellen's exercise routine is to go every third day. Today is Monday and both Max and Ellen are at the gym. What will the day of the week be the next time they are BOTH at the gym?

- a. Sunday
- b. Wednesday
- c. Friday
- d. Saturday

53. Danny is a contestant on a TV game show. If he gets a question right, the points for that question are added to his score. If he gets a question wrong, the points for that question are subtracted from his score. Danny currently has 200 points. If he gets a 300-point question wrong, what will his score be?

- a. -100
- b. 0
- c. -200
- d. 100

54. Write 3.5×10^4 in decimal notation.

- a. 3.50000
- b. 35,000

- c. 350,000
- d. 0.00035

55. The Ravens played 25 home games this year. They had 9 losses and 2 ties. How many games did they win?

- a. 14
- b. 11
- c. 13
- d. 12

56. The temperature at midnight was 4°F . By 2 A.M. it had dropped 9°F . What was the temperature at 2 A.M.?

- a. 13°F
- b. -5°F
- c. -4°F
- d. 0°F

57. Find the next number in the following pattern. 320, 160, 80, 40, . . .

- a. 35
- b. 30
- c. 10
- d. 20

58. Which of the following terms does NOT describe the number 9?

- a. prime
- b. integer
- c. real number
- d. whole number

59. Which expression below is equal to 5?

- a. $(1 + 2)^2$
- b. $9 - 2^2$
- c. $11 - 10 \times 5$
- d. $45 \div 3 \times 3$

60. A bus picks up a group of tourists at a hotel. The sightseeing bus travels 2 blocks north, 2 blocks east, 1 block south, 2 blocks east, and 1 block south. Where is the bus in relation to the hotel?

- a. 2 blocks north
- b. 1 block west
- c. 3 blocks south
- d. 4 blocks east

61. Each week Jaime saves \$25. How long will it take her to save \$350?

- a. 12 weeks
- b. 14 weeks
- c. 16 weeks
- d. 18 weeks

62. Ashley's car insurance costs her \$115 per month. How much does it cost her per year?

- a. \$1,150
- b. \$1,380
- c. \$980
- d. \$1,055

63. The ratio of boys to girls at the dance was 3:4. There were 60 girls at the dance. How many boys were at the dance?

- a. 45
- b. 50
- c. 55
- d. 40

64. The number of rooms at Hotel G is 10 less than twice the number of rooms at Hotel H. If the total number of rooms at both Hotels is 425, what is the number of rooms at Hotel G?

- (a) 140
- (b) 180
- (c) 240
- (d) 280

65. Look at this Series; 14, 28, 20, 40, 32, 64, What number should come next?

- (a) 52
- (b) 56
- (c) 96
- (d) 128

66. Look at this Series: 31, 29, 24, 22, 17, What number should come next?

- (a) 15
- (b) 14
- (c) 13
- (d) 12

67. In an election between 2 candidates, one got 55% of the total valid votes, 20% votes were invalid. If the total number of votes was 7500, what was the number of valid votes that the other candidate got?

- (a) 2800
- (b) 2700
- (c) 3300
- (d) 2500

68. 4 adults consumed food costing \$60 for 3 days. For the same food cost, what would be the cost of food consumed by 7 adults for 5 days?

- (a) \$300
- (b) \$175
- (c) \$105
- (d) \$100

69. Look at this Series; 22, 21, 23, 22, 24, 23, ... What number should come next?

- (a) 22
- (b) 24
- (c) 25
- (d) 26

70. For this Series of alphanumeric fractions: A/2, B/4, C/6, D/8. ?, ?, What should be the next fraction?

- (a) E/8, F/10
- (b) E/12, F/14
- (c) E/10, F/12
- (d) D/10, E/1

71. Look at this Series: 7, 10, 8, 11, 9, 12, What number should come next?

- (a) 7
- (b) 10
- (c) 12
- (d) 13

72. 36 men can complete a piece of work in 18 days. In how many days will 27 men complete the same work

- (a) 24
- (b) 22
- (c) 18
- (d) 12

73. 4 mat-weavers can weave 4 mats in 4 days. At the same rate, how many mats would be woven by 8 mat-weavers in 8 days?

- (a) 4
- (b) 8
- (c) 12
- (d) 16

74. A cubical block of metal weighs 6 pounds. How much will another cube of the same metal weigh if its sides are twice as long?

- (a) 48
- (b) 32
- (c) 24
- (d) 16

75. A P.E. teacher orders 30 new jersey for the school football team. If each of the jersey cost GH 3.99, what is the total cost of these jerseys.

- (a) GH 119.70
- (b) GH 219.70
- (c) GH 130.67
- (d) GH 230.67

76. A store pays GH 82.95 for a microwave and marks the price up by 20%. What is the new price?

- (a) GH 17.99
- (b) GH 82.95
- (c) GH 99.54
- (d) GH 100.94

77. Of the following fractions, which of them is greater than $\frac{1}{2}$?

- (a) $\frac{2}{1}$
- (b) $\frac{4}{7}$

- (c) $\frac{4}{9}$
- (d) $\frac{5}{11}$

78. In a class of 78 students. 41 are taking Journalism, 22 are taking Public Relations. Of the students taking Journalism or Public Relations, 9 are taking both courses. How many students are not enrolled in either course?

- (a) 6
- (b) 15
- (c) 24
- (d) 33

79. In a class of 24 pupils, 4 need additional support. What fraction of the class in lowest term needs additional support?

- (a) $\frac{1}{6}$
- (b) $\frac{1}{8}$
- (c) $\frac{1}{4}$
- (d) $\frac{1}{2}$

80. There are 3 apples and you take away 2. How many do you have?

- (a) 1
- (b) 2
- (c) 3
- (d) 4

81. What is the average (arithmetic mean) of all the multiples of ten from 10 to 190 inclusive?

- (a) 90
- (b) 95
- (c) 100
- (d) 105

82. If an object travels at five feet per second, how many feet does it travel in one hour

- (a) 30
- (b) 300
- (c) 1800
- (d) 18000

83. Look at this Series; D-4, F-6, H-8, J10, ?, ?. What pair of letters/numbers should come next?

- (a) K-12, M-13
- (b) L-12, M-14
- (c) L-12, N-14
- (d) K-12, M-14

84. Yaw, Kofi and Ama shared the profit they earned in a month from a joint business in the ratio 2:4:3 respectively. If Ama and Kofi together got a total of GH 42.00. Find the profit earned in the month.

- (a) GH 50.40
- (b) GH 54.00
- (c) GH 62.00
- (d) GH 68.00

85. A woman bought 210 oranges for 65 Ghanaian Cedis. She sold all of them at 3 for 2 cedis. How much profit did she make?

- (a) 35 cedis
- (b) 45 cedis
- (c) 65 cedis
- (d) 75 cedis

86. Mark is 30 years old. Yaw is half as old as Mark. Paul is 10 years older than Yaw. How old is Paul?

- (a) 30 years
- (b) 25 years
- (c) 20 years

(d) 15 years

87. If the ages of ten pregnant women in a maternity clinic are 26,23,24,27,26,21,22,25,23,23. Find the mean age.

(a) 34 years

(b) 14 years

(c) 23 years

(d) 24 years

88. A man has $6p$ sheep and $5q$ goats. He sells $3p$ sheep and $2q$ goats. How many animals are left after the sales?

(a) $3p - 3q$

(b) $3p + 3q$

(c) $9p - 5q$

(d) $9p + 9q$

89. Express 3m and 24cm in kilometres.

(a) 3.24 km

(b) 0.00324 km

(c) 0.324 km

(d) 32.4 km

90. A tank holds 240litres of water. How much water is in the tank when it is full?

(a) 240 litres

(b) 192 litres

(c) 132 litres

(d) 60 litres

91. The least number in a set of real numbers is greater than 24 and the highest is less than 30. Which of the following is the best interpretation of this statement?

(a) $24 > x > 30$

- (b) $24 < x = 30$
- (c) $24 > x < 30$
- (d) $24 < x < 30$

92. The sum of the ages of Kweku and Kojo is 30 years. Kweku is 4 years older than Kojo. How old is Kojo?

- (a) 19 years
- (b) 17 years
- (c) 13 years
- (d) 11 years

93. Simplify $-27 + 18 - (10 - 14) - (-2)$.

- (a) -3
- (b) -7
- (c) -11
- (d) -35

94. An amount of money was shared between Kofi and Ama in the ratio 3 : 5 respectively. If Ama received GHc 650.00, What was Kofi's share?

- (a) GHc 390.00
- (b) GHc 550.00
- (c) GHc 1040.00
- (d) GHc 743.00

95. Which of the following statements is TRUE about natural numbers?

- (a) All prime numbers are odd
- (b) Composite numbers have more than two divisors
- (c) The sum of any two natural numbers are odd
- (d) Even numbers are not divisible by 2

96. A car left Nsawam 9:45 am. It arrived in Kumasi in 3 hours 17 minutes later. At what time did the car arrived in Kumasi.

- (a) 12 : 02 pm
- (b) 12 : 52 am
- (c) 1 : 02 am
- (d) 1 : 02 pm

97. There are p boys and q girls in a classroom. Each person had 2 textbooks. Which of these expressions represents the total number of textbooks carried to the classroom?

- (a) $2(p + q)$
- (b) $2 + (p + q)$
- (c) $2p + q$
- (d) $2pq$

98. How many degrees does a minute hand of a clock turn through from 6 : 20 am to 7 : 00 am the same day?

- (a) 120 degrees
- (b) 320 degrees
- (c) 180 degrees
- (d) 240 degrees

99. Mansah obtained 150 marks out of 240 marks in a Mathematics test. What was her percentage score?

- (a) 33.33 %
- (b) 36.50 %
- (c) 41.67 %
- (d) 62.50 %

100. What is the next tern in the pattern ? $4 - 4 = 0$, $4 - 3 = 1$, $4 - 2 = 2$, $4 - 1 = 3$, $4 - 0 = 4$, ___ - ___ = 5.

- (a) $4 - (-1) = 5$

(b) $4 - (-2) = 6$

(c) $4 - 1 = 3$

(d) $4 - 5 = -1$

101. It takes 15 men an average of 48 days to weed a plot of land. How many men can weed the same plot of land in 16 days, if they work at the same rate?

(a) 45

(b) 32

(c) 18

(d) 5

102. A company has 200 employees. Thirty nine percent of them work in the machine room and 32% are engaged in distribution of goods. How many of the employees are engaged in other duties apart from these two?

(a) 45

(b) 56

(c) 58

(d) 71

103. Six hundred copies of a book have to be packed into boxes. Each box can hold 15 of the books. Which one of the following operations could be used to find the number of boxes needed?

(a) Add 15 to 600

(b) Divide 600 by 15

(c) Multiply 600 by 15

(d) Subtract 15 from 600

104. A boy used two-thirds of his weekly savings to buy a textbook. If he realized that he has GH 10.00 left, how much was the weekly savings.

(a) GH 20.00

(b) GH 30.00

(c) GH 40.00

(d) GH 60.00

105. Some pages in a book on a bookshelf are missing so that page 21 is now followed immediately by page 43. How many pages are missing?

(a) 20

(b) 21

(c) 22

(d) 43

106. Eleven more than 2 times Jona's age is equal to 59. How old is Jona?

(a) 23 years

(b) 24 years

(c) 67 years

(d) 35 years

107. Mr. Adaber bought three items priced at GH 65.50, GH 36.45 and GH 15.78. He paid with three GH 50.00 notes. How much change did he received?

(a) GH 32.27

(b) GH 32.73

(c) GH 33.27

(d) GH 33.73

108. Dora has a bag containing 3 blue tennis balls. Jennifer has a bag containing 2 black tennis balls. Their balls are all identical except for colours. The two girls put the balls in one bag. If a ball is picked at random from the bag, what is the probability that the ball is black?

(a) $\frac{1}{10}$

(b) $\frac{1}{5}$

(c) $\frac{2}{5}$

(d) $\frac{3}{5}$

109. If you take away the sum of 248.25 and 63.17 from 890.45, what is left?

- (a) 579.03
- (b) 589.03
- (c) 589.13
- (d) 689.03

110. The population of two communities are 1.8705×10^6 and 9.00846×10^5 . Calculate the total population of the two communities.

- (a) 277,145
- (b) 2,771,365
- (c) 2,972,000
- (d) 10,880,000

111. Dartey recorded a mean score of 24 on five tests. What should she score on the sixth test to bring her mean score up to 26?

- (a) 30
- (b) 32
- (c) 36
- (d) 40

112. A school wants to fence its rectangular playing field measuring 118m by 92m with wire mesh. How many meters of wire mesh will be needed to complete the fencing?

- (a) 200 m
- (b) 410 m
- (c) 420 m
- (d) 440 m

113. If the population of a village increases by 97, it will reach at least 4,050 people. Which one of the following inequalities represents the statement correctly?

- (a) $P + 97 < 4,050$
- (b) $P + 97 = < 4,050$
- (c) $P + 97 = < 050$

(d) $P + 97 > 4,050$

114. A garden has 80 flowers, and $\frac{5}{8}$ of them are roses. How many roses are in the garden?

A) 40

B) 50

C) 60

D) 70

Answer: B) 50

115. A farmer distributes 600 kg of grain among his livestock, giving them each $\frac{2}{5}$ of a kilogram daily. How many animals does he have?

A) 300

B) 750

C) 1200

D) 1500

Answer: B) 750

116: What is the area of a rectangle with length 8 cm and width 4 cm?

a) 12 cm^2

b) 24 cm^2

c) 32 cm^2

d) 16 cm^2

117: Convert 2000 milliliters to liters.

a) 0.2 liters

b) 20 liters

c) 2 liters

d) 0.02 liters

118: How many grams are there in 5 kilograms?

- a) 500 grams
- b) 5,000 grams
- c) 50,000 grams
- d) 500,000 grams

119: If a car travels at a speed of 60 kilometers per hour, how many kilometers will it travel in 3 hours?

- a) 120 km
- b) 180 km
- c) 240 km
- d) 360 km

120: What fraction of a day is 6 hours?

- a) $\frac{1}{4}$
- b) $\frac{1}{3}$
- c) $\frac{1}{6}$
- d) $\frac{1}{2}$

121: Convert 100 degrees Celsius to Fahrenheit.

- a) 180°F
- b) 212°F
- c) 100°F
- d) 275°F

122: What is the sum of interior angles of a triangle?

- a) 180 degrees
- b) 90 degrees
- c) 270 degrees
- d) 360 degrees

123: How many sides does a hexagon have?

- a) 6
- b) 7
- c) 8
- d) 10

124: What is the circumference of a circle with radius 5 cm?

- a) 10π cm
- b) 15π cm
- c) 20π cm
- d) 25π cm

125: Which of the following is a 3-dimensional shape?

- a) Square
- b) Circle
- c) Sphere
- d) Triangle

126. Round 14.851 to the nearest tenth.

- a. 14.85
- b. 10
- c. 14.9
- d. 15

127. Kara brought \$23 with her when she went shopping. She spent \$3.27 for lunch and \$14.98 on a shirt. How much money does she have left?

- a. \$8.02
- b. \$4.75

- c. \$18.25
- d. \$7.38

128. Lucas purchased his motorcycle for \$5,875.98 and sold it for \$7,777.77. What was his profit?

- a. \$1,901.79
- b. \$2,902.89
- c. \$1,051.79
- d. \$1,911.89

129. Mike, Dan, Ed, and Sy played together on a baseball team. Mike's batting average was 0.349, Dan's was 0.2, Ed's was 0.35, and Sy's was 0.299. Who had the highest batting average?

- a. Mike
- b. Dan
- c. Ed
- d. Sy

130. Price Cutter sold 85 beach towels for \$6.95 each. What were the total sales?

- a. \$865.84
- b. \$186.19
- c. \$90.35
- d. \$590.75

131. Rob purchased picnic food for \$33.20 to share with three of his friends. They plan to split the cost evenly between the four friends. How much does each person need to pay Rob?

- a. \$8.05
- b. \$8.30
- c. \$7.26
- d. \$11.07

132. Katie ran 11.1 miles over the last three days. How many miles did she average per day?

- a. 3.7
- b. 3.0
- c. 2.4
- d. 3.3

133. Sharon purchased six adult movie tickets. She spent \$43.50 on the tickets. How much was each ticket?

- a. \$4.35
- b. \$7.75
- c. \$6.00
- d. \$7.25

134. Millie purchased six bottles of soda at \$1.15 each. How much did she pay?

- a. \$6.15
- b. \$6.90
- c. \$6.60
- d. \$5.90

135. Round 468.235 to the nearest hundredth.

- a. 500
- b. 568.235
- c. 468.24
- d. 468.2

136. Kenny used a micrometer to measure the thickness of a piece of construction paper. The paper measured halfway between 0.24 millimeters and 0.25 millimeters. What is the thickness of the paper?

- a. 0.05
- b. 0.245
- c. 0.255
- d. 0.3

137. In her last gymnastics competition Keri scored a 5.6 on the floor exercise, 5.85 on the vault, and 5.90 on the balance beam. What was Keri's total score?

- a. 17.35
- b. 12.31
- c. 15.41
- d. 13.5

138. Linda bought 35 yards of fencing at \$4.88 a yard. How much did she spend?

- a. \$298.04
- b. \$248.80
- c. \$91.04
- d. \$170.80

139. Divide 6.8×10^5 by 2.0×10^2 . Write your answer in scientific notation.

- a. 4.8×10^3
- b. $4.8 \times 10^{2.5}$
- c. 3.4×10^3
- d. 3.4×10^4

140. Leslie ordered a slice of pizza for \$1.95, a salad for \$2.25, and a soda for \$1.05. What was the total cost of her order?

- a. \$5.25
- b. \$5.35
- c. \$6.25
- d. \$5.05

141. Last year's budget was 12.5 million dollars. This year's budget is 14.1 million dollars. How much did the budget increase?

- a. 2.5 million
- b. 1.6 million
- c. 1.4 million

d. 2.2 million

142. Mrs. Hartill drove 3.1 miles to the grocery store, then 4.25 miles to the salon, and 10.8 miles to her son's house. How many miles did she drive altogether?

a. 18.15

b. 56.4

c. 8.43

d. 14.65

143. The following are four times from a 400-meter race. Which is the fastest time?

a. 10.1

b. 10.14

c. 10.2

d. 10.09

144. It takes the moon an average of 27.32167 days to circle the earth. Round this number to the nearest thousandth.

a. 27.322

b. 27.3

c. 27.32

d. 27.321

145. Joe's batting average is between 0.315 and 0.32. Which of the following could be Joe's average?

a. 0.311

b. 0.309

c. 0.321

d. 0.317

146. Find the product of 5.2×10^3 and 6.5×10^7 . Write your answer in scientific notation.

a. 33.8×10^{21}

- b. 3.38×10^{11}
- c. 33.8×10^{10}
- d. 3.38×10^9

147. Brian's 100-yard dash time was 2.68 seconds more than the school record. Brian's time was 13.4 seconds. What is the school record?

- a. 10.72 seconds
- b. 11.28 seconds
- c. 10.78 seconds
- d. 16.08 seconds

148. Ryan's gym membership costs him \$390 per year. He pays this in twelve equal instalments a year. How much is each instalment?

- a. \$1,170
- b. \$42.25
- c. \$4,680
- d. \$32.50

149. How much greater is 0.0543 than 0.002?

- a. 0.0343
- b. 0.0072
- c. 0.0523
- d. 0.0563

150. Kevin ran 6.8 miles yesterday and 10.4 miles today. How many more miles did he run today?

- a. 3.6
- b. 4.6
- c. 4.4
- d. 5.9

151. Jay bought twenty-five \$0.37 stamps. How much did he spend?

- a. \$5.19
- b. \$7.34
- c. \$2.38
- d. \$9.25

152. Which number falls between 5.56 and 5.81?

- a. 5.54
- b. 5.87
- c. 5.6
- d. 5.27

153. Hanna's sales goal for the week is \$5,000. So far she has sold \$3,574.38 worth of merchandise. How much more does she need to sell to meet her goal?

- a. \$2,425.38
- b. \$1,329.40
- c. \$2,574.38
- d. \$1,425.62

154. Which of the following decimals is the greatest number?

- a. 0.064
- b. 0.007
- c. 0.1
- d. 0.04236

155. Andy earned the following grades on his four math quizzes: 97, 78, 84, and 86. What is the average of his four quiz grades?

- a. 82.5
- b. 86.25
- c. 81.5

d. 87

156. Luis runs at a rate of 11.7 feet per second. How far does he run in 5 seconds?

a. 585 feet

b. 490.65 feet

c. 58.5 feet

d. 55.5 feet

157. Nancy, Jennifer, Alex, and Joy ran a race. Nancy's time was 50.24 seconds, Jennifer's was 50.32, Alex's was 50.9, and Joy's was 50.2. Whose time was the fastest?

a. Nancy

b. Jennifer

c. Alex

d. Joy

158. Mike can jog 6.5 miles per hour. At this rate, how many miles will he jog in 30 minutes?

a. 3.25 miles

b. 13 miles

c. 3 miles

d. 4.25 miles

159. What decimal is represented by point A on the number line?

a. 0.77

b. 0.752

c. 0.765

d. 0.73

160. Nicole is making 20 gift baskets. She has 15 pounds of chocolates to distribute equally among the baskets. If each basket gets the same amount of chocolates, how many pounds should Nicole put in each basket?

a. 1.3 pounds

- b. 0.8 pounds
- c. 0.75 pounds
- d. 3 pounds

161. A librarian is returning library books to the shelf. She uses the call numbers to determine where the books belong. She needs to place a book about perennials with a call number of 635.93. Between which two call numbers should she place the book?

- a. 635.8 and 635.9
- b. 635.8 and 635.95
- c. 635.935 and 635.94
- d. 635.99 and 636.0

162. Michael made 19 out of 30 free-throws this basketball season. Larry's freethrow average was 0.745 and Charles' was 0.81. John made 47 out of 86 free-throws. Who is the best free-throw shooter?

- a. Michael
- b. Larry
- c. Charles
- d. John

163. Which number below is described by the following statements? The hundredths digit is 4 and the tenths digit is twice the thousandths digit.

- a. 0.643
- b. 0.0844
- c. 0.446
- d. 0.0142

164. If a telephone pole weighs 11.5 pounds per foot, how much does a 32-foot pole weigh?

- a. 368 pounds
- b. 357 pounds
- c. 346 pounds

d. 338.5 pounds

165. Amy purchased 6 books at \$4.79 each. How much did the books cost altogether?

a. \$24.24

b. \$24.96

c. \$28.74

d. \$29.54

166. Bill traveled 117 miles in 2.25 hours. What was his average speed?

a. 26.3 miles per hour

b. 5.2 miles per hour

c. 46 miles per hour

d. 52 miles per hour

167. Tom is cutting a piece of wood to make a shelf. He cut the wood to 3.5 feet, but it is too long to fit in the bookshelf he is making. He decides to cut 0.25 feet off the board. How long will the board be after he makes the cut?

a. 3.25 feet

b. 3.75 feet

c. 3.025 feet

d. 2.75 feet

168. A bricklayer estimates that he needs 6.5 bricks per square foot. He wants to lay a patio that will be 110 square feet. How many bricks will he need?

a. 650

b. 7,150

c. 6,500

d. 715

169. Find the area of a circle with a radius of 6 inches. The formula for the area of a circle is $A = \pi r^2$. Use 3.14 for π .

- a. 37.68 square inches
- b. 113.04 square inches
- c. 9.42 square inches
- d. 75.36 square inches

170. Mary made 34 copies at the local office supply store. The copies cost \$0.06 each. What was the total cost of the copies?

- a. \$2.04
- b. \$1.84
- c. \$1.68
- d. \$1.80

171. Tammi's new printer can print 13.5 pages a minute. How many pages can it print in 4 minutes?

- a. 52
- b. 48
- c. 64
- d. 54

172. The price of gasoline is \$1.349 cents per gallon. If the price increases by three tenths of a cent, what will the price of gasoline be?

- a. \$1.649
- b. \$1.352
- c. \$1.449
- d. \$1.379

173. Louise is estimating the cost of the groceries in her cart. She rounds the cost of each item to the nearest dollar to make her calculations. If an item costs \$1.45, to what amount will Louise round the item?

- a. \$1.00
- b. \$1.50

- c. \$2.00
- d. \$1.40

174. A pipe has a diameter of 2.5 inches. Insulation that is 0.5 inches thick is placed around the pipe. What is the diameter of the pipe with the insulation around it?

- a. 3.0 inches
- b. 4.5 inches
- c. 2.0 inches
- d. 3.5 inches

175. A 64-ounce bottle of detergent costs \$3.20. What is the cost per ounce of detergent?

- a. \$0.20
- b. \$0.64
- c. \$0.05
- d. \$0.32

176. George worked from 7:00 A.M. to 3:30 P.M. with a 45-minute break. If George earns \$10.50 per hour and does not get paid for his breaks, how much will he earn? (Round to the nearest cent.)

- a. \$89.25
- b. \$84.00
- c. \$97.13
- d. \$81.38

177. Marci filled her car's gas tank on Monday, and the odometer read 32,461.3 miles. On Friday when the car's odometer read 32,659.7 miles, she filled the car's tank again. It took 12.4 gallons to fill the tank. How many miles to the gallon does Marci's car get?

- a. 16 miles per gallon
- b. 18.4 miles per gallon
- c. 21.3 miles per gallon
- d. 14 miles per gallon

178. Martha has \$20 to spend and would like to buy as many calculators as possible with the money. The calculators that she wants to buy are \$4.50 each. How much money will she have left over after she purchases the greatest possible number of calculators?

- a. \$0.45
- b. \$1.25
- c. \$2.65
- d. \$2.00

179. What is the smallest possible number that can be created with four decimal places using the numbers 3, 5, 6, and 8?

- a. 0.8653
- b. 0.3568
- c. 0.6538
- d. 0.5368

180. Which of the following numbers is equivalent to 12.087?

- a. 12.0087
- b. 120.087
- c. 12.0870
- d. 102.087

181. Which of the following numbers will yield a number larger than 23.4 when it is multiplied by 23.4?

- a. 0.999
- b. 0.0008
- c. 0.3
- d. 1.0002

182. Kelly plans to fence in her yard. The Fabulous Fence Company charges \$3.25 per foot of fencing and \$15.75 an hour for labor. If Kelly needs 350 feet of fencing and the installers work a total of 6 hours installing the fence, how much will she owe the Fabulous Fence Company?

- a. \$1,153.25
- b. \$1,232.00
- c. \$1,069.00
- d. \$1,005.50

183. Thomas is keeping track of the rainfall in the month of May for his science project. The first day, 2.6 cm of rain fell. On the second day, 3.4 cm fell. On the third day, 2.1 cm fell. How many more cm are needed to reach the average monthly rainfall in May, which is 9.7 cm?

- a. 8.1 cm
- b. 0.6 cm
- c. 1.6 cm
- d. 7.4 cm

184. How will the decimal point move when 245.398 is multiplied by 100?

- a. It will move three places to the right.
- b. It will move three places to the left.
- c. It will move two places to the right.
- d. It will move two places to the left.

185. Mona purchased one and a half pounds of turkey at the deli for \$6.90. What did she pay per pound?

- a. \$4.60
- b. \$10.35
- c. \$3.45
- d. \$5.70

186. Lucy's Lunch is sending out flyers and pays a bulk rate of 14.9 cents per piece of mail. If she mails 1,500 flyers, what will she pay?

- a. \$14.90
- b. \$29.80
- c. \$256.50

d. \$223.50

187. If 967.234 is divided by 10, how will the decimal point move?

- a. It will move one place to the right.
- b. It will move one place to the left.
- c. It will move two places to the right.
- d. It will move two places to the left.

188. A pair of pants costs \$24. The cost was reduced by 8%. What is the new cost of the pants?

- a. \$25.92
- b. \$21.06
- c. \$22.08
- d. \$16.00

189. Michael scored 260 points during his junior year on the school basketball team. He scored 20% more points during his senior year. How many points did he score during his senior year?

- a. 208
- b. 52
- c. 312
- d. 345

190. Brian is a real estate agent. He makes a 2.5% commission on each sale. During the month of June he sold three houses. The houses sold for \$153,000, \$299,000, and \$121,000. What was Brian's total commission on these three sales?

- a. \$143,250
- b. \$11,460
- c. \$3,825
- d. \$14,325

191. Cory purchased a frying pan that was on sale for 30% off. She saved \$3.75 with the sale. What was the original price of the frying pan?

- a. \$10.90
- b. \$9.25
- c. \$12.50
- d. \$11.25

192. Peter purchased 14 new baseball cards for his collection. This increased the size of his collection by 35%. How many baseball cards does Peter now have?

- a. 5
- b. 54
- c. 40
- d. 34

193. Joey has 30 pages to read for history class tonight. He decided that he would take a break when he finished reading 70% of the pages assigned. How many pages must he read before he takes a break?

- a. 7
- b. 21
- c. 9
- d. 18

194. Julie had \$500. She spent 20% of it on clothes and then 25% of the remaining money on CDs. How much money did Julie spend?

- a. \$225
- b. \$300
- c. \$200
- d. \$250

195. Nick paid \$68.25 for a coat, including sales tax of 5%. What was the original price of the coat before tax?

- a. \$63.25
- b. \$65.25

- c. \$65.00
- d. \$64.84

196. The Dow Jones Industrial Average fell 2% today. The Dow began the day at 8,800. What was the Dow at the end of the day after the 2% drop?

- a. 8,600
- b. 8,976
- c. 8,624
- d. 8,720

197. The population of Hamden was 350,000 in 1990. By 2000, the population had decreased to 329,000. What percent of decrease is this?

- a. 16%
- b. 7.5%
- c. 6%
- d. 6.4%

198. Connecticut state sales tax is 6%. Lucy purchases a picture frame that costs \$10.50. What is the Connecticut sales tax on this item?

- a. \$0.60
- b. \$6.30
- c. \$0.63
- d. \$1.05

199. Wendy brought \$16 to the mall. She spent \$6 on lunch. What percent of her money did she spend on lunch?

- a. 60%
- b. 37.5%
- c. 26%
- d. 62.5%

200. Donald sold \$5,250 worth of new insurance policies last month. If he receives a commission of 7% on new policies, how much did Donald earn in commissions last month?

- a. \$4,882.50
- b. \$367.50
- c. \$3,675.00
- d. \$263.00

201. Kara borrowed \$3,650 for one year at an annual interest rate of 16%. How much did Kara pay in interest?

- a. \$1,168.00
- b. \$584.00
- c. \$4,234.00
- d. \$168.00

202. Rebecca is 12.5% taller than Debbie. Debbie is 64 inches tall. How tall is Rebecca?

- a. 42 inches
- b. 8 inches
- c. 56 inches
- d. 72 inches

203. Kyra receives a 5% commission on every car she sells. She received a \$1,325 commission on the last car she sold. What was the cost of the car?

- a. \$26,500.00
- b. \$66.25
- c. \$27,825.00
- d. \$16,250.00

204. A tent originally sold for \$260 and has been marked down to \$208. What is the percent of discount?

- a. 20%
- b. 25%

- c. 52%
- d. 18%

205. The football boosters club had 80 T-shirts made to sell at football games. By mid-October, they had only 12 left. What percent of the shirts had been sold?

- a. 85%
- b. 15%
- c. 60%
- d. 40%

206. A printer that sells for \$190 is on sale for 20% off. What is the sale price of the printer?

- a. \$152
- b. \$170
- c. \$140
- d. \$136

207. What is 19% of 26?

- a. 21.06
- b. 4.94
- c. 19
- d. 5

208. There are 81 women teachers at Russell High. If 45% of the teachers in the school are women, how many teachers are there at Russell High?

- a. 180
- b. 36
- c. 165
- d. 205

209. Kim is a medical supplies salesperson. Each month she receives a 5% commission on all her sales of medical supplies up to \$20,000 and 8.5% on her total sales over \$20,000. Her total commission for May was \$3,975. What were her sales for the month of May?

- a. \$79,500
- b. \$64,250
- c. \$46,764
- d. \$55,000

210. 64% of the students in the school play are boys. If there are 75 students in the play, how many are boys?

- a. 64
- b. 45
- c. 27
- d. 48

211. Christie purchased a scarf marked \$15.50 and gloves marked \$5.50. Both items were on sale for 20% off the marked price. Christie paid 5% sales tax on her purchase. How much did she spend?

- a. \$25.20
- b. \$16.80
- c. \$26.46
- d. \$17.64

212. Last year, a math textbook cost \$54. This year the cost is 107% of what it was last year. What is this year's cost?

- a. \$59.78
- b. \$57.78
- c. \$61.00
- d. \$50.22

213. Larry earned \$32,000 per year. Then he received a $3\frac{1}{4}\%$ (Three Whole Number one over four) % raise. What is Larry's salary after the raise?

- a. \$33,040
- b. \$35,000
- c. \$32,140
- d. \$32,960

214. Bill spent 50% of his savings on school supplies, then he spent 50% of what was left on lunch. If he had \$6 left after lunch, how much did he have in savings at the beginning?

- a. \$24
- b. \$12
- c. \$18
- d. \$30

215. A coat that costs \$72 is marked up 22%. What is the new price of the coat?

- a. \$78.22
- b. \$96.14
- c. \$56.16
- d. \$87.84

216. Kristen earns \$550 each week after taxes. She deposits 10% of her income in a savings account and 7% in a retirement fund. How much does Kristen have left after the money is taken out for her savings account and retirement fund?

- a. \$505.25
- b. \$435.50
- c. \$533.00
- d. \$456.50

217. Coastal Cable had 1,440,000 customers in January of 2002. During the first half of 2002 the company launched a huge advertising campaign. By the end of 2002 they had 1,800,000 customers. What is the percent of increase?

- a. 36%
- b. 21%

- c. 20%
- d. 25%

218. The price of heating oil rose from \$1.10 per gallon to \$1.43 per gallon. What is the percent of increase?

- a. 30%
- b. 33%
- c. 23%
- d. 27%

219. 450 girls were surveyed about their favorite sport, 24% said that basketball is their favorite sport, 13% said that ice hockey is their favorite sport, and 41% said that softball is their favorite sport. The remaining girls said that field hockey is their favorite sport. What percent of the girls surveyed said that field hockey is their favorite sport?

- a. 37%
- b. 22%
- c. 78%
- d. 35%

220. 25% of babies born at Yale New Haven Hospital weigh less than 6 pounds and 78% weigh less than 8.5 pounds. What percent of the babies born at Yale New Haven Hospital weigh between 6 and 8.5 pounds?

- a. 22%
- b. 24%
- c. 53%
- d. 2.5%

221. An \$80.00 coat is marked down 20%. It does not sell, so the shop owner marks it down an additional 15%. What is the new price of the coat?

- a. \$64.00
- b. \$68.60
- c. \$52.00

d. \$54.40

222. $\frac{3}{5}$ of the soda purchased at the football game was cola. What percentage of the soda purchased was cola?

a. 60%

b. 40%

c. 30%

d. 70%

223. In a recent survey of 700 people, 15% said that red was their favorite color. How many people said that red was their favorite color?

a. 15

b. 75

c. 125

d. 15

224. In Kimmi's fourth grade class, 8 out of the 20 students walk to school. What percent of the students in her class walk to school?

a. 40%

b. 50%

c. 45%

d. 35%

225. In Daniel's fifth grade class, 37.5% of the 24 students walk to school. Onethird of the walkers got a ride to school today from their parents. How many walkers got a ride to school from their parents today?

a. 9

b. 12

c. 2

d. 3

226. Lindsay purchased a pocketbook for \$45 and a pair of shoes for \$55. The sales tax on the items was 6%. How much sales tax did she pay?

- a. \$2.70
- b. \$3.30
- c. \$6.00
- d. \$6.60

227. Wendy bought a book and the sales tax on the book was \$2.12. If the sales tax is 8%, what was the price of the book?

- a. \$26.50
- b. \$16.96
- c. \$24.76
- d. \$265.00

228. Mr. Pelicas took his family out to dinner. The bill was \$65.00. He would like to leave a 20% tip. How much should he leave?

- a. \$20
- b. \$3.25
- c. \$13
- d. \$16.25

229. The Daily News reported that 54% of people surveyed said that they would vote for Larry Salva for mayor. Based on the survey results, if 23,500 people vote in the election, how many people are expected to vote for Mr. Salva?

- a. 12,690
- b. 4,350
- c. 10,810
- d. 18,100

230. Bikes are on sale for 30% off the original price. What percent of the original price will the customer pay if he gets the bike at the sale price?

- a. 130%

- b. 60%
- c. 70%
- d. 97%

231. A pair of mittens has been discounted 12.5%. The original price of the mittens was \$10. What is the new price?

- a. \$8.80
- b. \$8.75
- c. \$7.50
- d. \$9.88

232. John's youth group is trying to raise \$1,500 at a car wash. So far, they have raised \$525. What percent of their goal have they raised?

- a. 35%
- b. 52%
- c. 3%
- d. 28%

233. The freshman class is participating in a fundraiser. Their goal is to raise \$5,000. After the first two days of the fundraiser, they have raised 32% of their goal. How many dollars did they raise the first two days?

- a. \$160
- b. \$32
- c. \$1,600
- d. \$3,400

234. 1,152 out of 3,600 people surveyed said that they work more than 40 hours per week. What percent of the people surveyed said that they work more than 40 hours per week?

- a. 32%
- b. 3.1%
- c. 40%

d. 24%

235. Peter was 60 inches tall on his thirteenth birthday. By the time he turned 15, his height had increased 15%. How tall was Peter when he turned 15?

a. 75 inches

b. 69 inches

c. 72 inches

d. 71 inches

236. Laura paid \$17 for a pair of jeans. The ticketed price was 20% off the original price plus the sign on the rack said, "Take an additional 15% off the ticketed price." What was the original price of the jeans?

a. \$30

b. \$28

c. \$25

d. \$21

237. The 5% sales tax on a basket was \$0.70. What was the price of the basket?

a. \$14

b. \$35

c. \$17

d. \$24.50

238. What percent of the figure below is shaded?

a. 50%

b. 65%

c. 75%

d. 80%

239. Melisa and Jennifer threw a fiftieth birthday party for their father at a local restaurant. When the bill came, Melisa added a 15% tip of \$42. Jennifer said that the service was wonderful and they should leave a 20% tip instead. How much is a 20% tip?

- a. \$56
- b. \$45
- c. \$47
- d. \$60

240. The Hamden Town Manager wants to know what percent of the snow removal budget has already been spent. The budget for snow removal is \$130,000. It has been an exceptionally snowy year, and they have already spent \$100,000 for snow removal. What percent of the budget has already been spent? (round to the nearest percent)

- a. 30%
- b. 70%
- c. 72%
- d. 77%

241. A real estate agent makes a 1.5% commission on her sales. What is her commission if she sells a \$359,000 house?

- a. \$53,850
- b. \$5,385
- c. \$23,933
- d. \$1,500

242. The manager of a specialty store marks up imported products 110%. If a vase imported from Italy costs him \$35, what price tag will he put on the item?

- a. \$70
- b. \$83.50
- c. \$65
- d. \$73.50

243. Michelle purchased a vacation home with her sisters. Michelle has \$125,000 invested in the property, which is worth \$400,000. What percent of the property does Michelle own?

- a. 3.2%
- b. 43%
- c. 31.25%
- d. 26.5%

244. Kyra's weekly wages are \$895. A Social Security tax of 7.51% and a State Disability Insurance of 1.2% are taken out of her wages. What is her weekly paycheck, assuming there are no other deductions?

- a. \$827.79
- b. \$884.26
- c. \$962.21
- d. \$817.05

245. Oscar's Oil Company gives customers a 5% discount if they pay their bill within 10 days. The Stevens' oil bill is \$178. How much do they save if they pay the bill within 10 days?

- a. \$8.90
- b. \$5.00
- c. \$17.80
- d. \$14.60

246. Josephine is on an 1,800 calorie per day diet. She tries to keep her intake of fat to no more than 30% of her total calories. Based on an 1,800 calorie a day diet, what is the maximum number of calories that Josephine should consume from fats per day to stay within her goal?

- a. 600
- b. 640
- c. 580
- d. 540

247. A family may deduct 24% of their childcare expenses from their income tax owed. If a family had \$1,345 in childcare expenses, how much can they deduct?

- a. \$1,022.20
- b. \$345.00

- c. \$322.80
- d. \$789.70

248. A factory that is working at 90% capacity is shipping 450 cars per week. If the factory works at 100% capacity, how many cars can it ship per week?

- a. 650
- b. 500
- c. 495
- d. 405

249. Sales increased by only $\frac{1}{2}$ % last month. If the sales from the previous month were \$152,850, what were last month's sales?

- a. \$229,275.00
- b. \$153,614.25
- c. \$152,849.05
- d. \$151,397.92

250. Laura is planning her wedding. She expects 230 people to attend the wedding, but she has been told that approximately 5% typically don't show. About how many people should she expect not to show?

- a. 46
- b. 5
- c. 12
- d. 23

251. How much water is used from a tank containing 500 liters if $\frac{3}{5}$ of it is used?

- a) 200 liters
- b) 300 liters
- c) 350 liters
- d) 400 liters

Answer: b) 300 liters

252. A reservoir contains 8000 liters of water. If 25% of the water is used, how much remains?

- a) 2000 liters
- b) 4000 liters
- c) 6000 liters
- d) 800 liters

Answer: b) 4000 liters

253. If $\frac{7}{10}$ of a swimming pool's water is drained, what percentage of water remains?

- a) 10%
- b) 20%
- c) 30%
- d) 70%

Answer: c) 30%

254. A water tank contains 600 liters. If 40 liters are used daily, how many days will the water last?

- a) 12 days
- b) 15 days
- c) 20 days
- d) 25 days

Answer: b) 15 days

255. In a household, $\frac{1}{4}$ of the daily water usage goes for drinking and cooking. If they consume 60 liters daily, how much water is used for drinking and cooking?

- a) 10 liters
- b) 15 liters
- c) 20 liters
- d) 25 liters

Answer: c) 20 liters

256. A water tank has 1000 liters of water. If $\frac{3}{8}$ of the water is used for gardening, how much water is left in the tank?

- a) 375 liters
- b) 450 liters
- c) 625 liters
- d) 625 liters

Answer: c) 625 liters

257. If a factory uses 15% of its water daily, how much water is consumed if the daily usage is 12000 liters?

- a) 1000 liters
- b) 1800 liters
- c) 1500 liters
- d) 2000 liters

Answer: b) 1800 liters

258. A water tank is filled to its full capacity with 900 liters. If $\frac{1}{5}$ of the water leaks, how much water remains?

- a) 180 liters
- b) 360 liters
- c) 720 liters
- d) 450 liters

Answer: d) 450 liters

259. A swimming pool contains 20000 liters of water. If 20% of the water evaporates during the summer, how much water remains in the pool?

- a) 5000 liters
- b) 8000 liters
- c) 10000 liters
- d) 16000 liters

Answer: b) 8000 liters

260. If $\frac{2}{3}$ of a water reservoir is full, what percentage of water is missing?

- a) 15%
- b) 25%
- c) 33.33%
- d) 50%

Answer: c) 33.33%

261. A household uses 50 liters of water daily. If this consumption remains constant, how much water will they use in 30 days?

- a) 1200 liters
- b) 1500 liters
- c) 2000 liters
- d) 2500 liters

Answer: b) 1500 liters

262. A water tank has 800 liters of water. If 20% of the water is used for cleaning, how much water is used for cleaning?

- a) 80 liters
- b) 120 liters
- c) 160 liters
- d) 200 liters

Answer: c) 160 liters

263. In a water conservation campaign, a community reduces their water usage by 15%. If they were using 4000 liters before, how much water are they using now?

- a) 600 liters
- b) 1600 liters
- c) 3400 liters
- d) 34000 liters

Answer: c) 3400 liters

264. If a water tank is filled to $\frac{2}{7}$ of its capacity, what percentage of the water tank is empty?

- a) 28.57%
- b) 42.86%
- c) 57.14%
- d) 71.43%

Answer: b) 42.86%

265. A company uses 3000 liters of water daily. If they decide to reduce their water usage by 25%, how much water will they use after the reduction?

- a) 500 liters
- b) 1500 liters
- c) 2250 liters
- d) 2500 liters

Answer: b) 1500 liters

266. If a water reservoir is 80% full, what percentage of water is still available to be filled?

- a) 10%
- b) 20%
- c) 30%
- d) 80%

Answer: c) 30%

267. A water tank contains 600 liters. If 60 liters are used daily, how many liters will remain after 10 days?

- a) 0 liters
- b) 100 liters
- c) 300 liters
- d) 540 liters

Answer: c) 300 liters

268. In a drought-affected area, a village uses 10,000 liters of water daily. If they need to reduce usage by 40%, how much water should they use now?

- a) 2000 liters
- b) 4000 liters
- c) 6000 liters
- d) 8000 liters

Answer: b) 4000 liters

269. A water tank is filled to 90% of its capacity. How much more water can be added to fill it completely?

- a) 10%
- b) 50%
- c) 90%
- d) 100%

Answer: a) 10%

270. If a household uses 50 liters of water daily, how much water will they use in one year (365 days)?

- a) 5000 liters
- b) 10000 liters
- c) 15000 liters
- d) 18250 liters

Answer: d) 18250 liters

271. How many oranges are there in the basket?

- a) 10
- b) 20
- c) 30 (Answer)

d) 40

272. What is the cost of each orange?

a) GH¢0.20

b) GH¢0.30

c) GH¢0.40

d) GH¢0.50 (Answer)

273. What is the total cost of the oranges?

a) GH¢5

b) GH¢10

c) GH¢15 (Answer)

d) GH¢20

274. If the number of oranges in the basket increased to 40, what would be the new total cost?

a) GH¢10

b) GH¢15 (Answer)

c) GH¢20

d) GH¢25

275. If the cost of each orange was GH¢0.75, what would be the total cost of the oranges?

a) GH¢10.50

b) GH¢15 (Answer)

c) GH¢22.50

d) GH¢25

276. What is the cost of 10 oranges?

a) GH¢5

b) GH¢7.50 (Answer)

c) GH¢10

d) GH¢12.50

277. If two oranges were removed from the basket, how much would be the new total cost?

a) GH¢7.50

b) GH¢12.50

c) GH¢14.50

d) GH¢15 (Answer)

278. What is the average cost per orange?

a) GH¢0.25

b) GH¢0.30

c) GH¢0.40

d) GH¢0.50 (Answer)

279. If the cost of each orange increased by GH¢0.20, what would be the new total cost for 30 oranges?

a) GH¢5

b) GH¢10

c) GH¢15 (Answer)

d) GH¢20

280. What is the total cost if half of the oranges were given away for free?

a) GH¢5

b) GH¢7.50

c) GH¢10

d) GH¢15 (Answer)

281. If the basket contains 40 oranges and each orange costs GH¢0.75, what is the new total cost?

a) GH¢25

- b) GH¢30 (Answer)
- c) GH¢35
- d) GH¢40

282. If 20 oranges were added to the basket, how much would be the new total cost?

- a) GH¢5
- b) GH¢10
- c) GH¢15 (Answer)
- d) GH¢20

283. What is the total cost if the price of each orange is reduced by GH¢0.10?

- a) GH¢4
- b) GH¢11
- c) GH¢12 (Answer)
- d) GH¢14

284. If the cost of each orange doubled, what would be the new total cost for 30 oranges?

- a) GH¢15
- b) GH¢30 (Answer)
- c) GH¢45
- d) GH¢60

285. If the basket contains 25 oranges and each orange costs GH¢0.60, what is the total cost of the oranges?

- a) GH¢15
- b) GH¢18 (Answer)
- c) GH¢20
- d) GH¢22.50

286. Jane has twice as many apples as Tom. If Tom has 'x' apples, how many apples does Jane have?

- A) $2x$
- B) $3x$
- C) $x + 2$
- D) $x / 2$

Answer: A) $2x$

287. The perimeter of a square garden is 36 meters. What is the length of each side of the square?

- A) 6 meters
- B) 9 meters
- C) 12 meters
- D) 18 meters

Answer: B) 9 meters

288. The sum of two consecutive even numbers is 50. What are the numbers?

- A) 24, 26
- B) 25, 27
- C) 20, 22
- D) 22, 24

Answer: A) 24, 26

289. A toy store sells teddy bears for \$10 each. If 'x' is the number of teddy bears purchased, what is the total cost?

- A) $\$10 + x$
- B) $10x$
- C) $10 - x$
- D) $10 / x$

Answer: B) $10x$

290. The area of a rectangle is 'A' square units, and its length is ' $x + 3$ ' units. What is the width of the rectangle?

- A) $x + A$
- B) $A / (x + 3)$
- C) $x - 3$
- D) $A - 3$

Answer: B) $A / (x + 3)$

291. If the sum of two numbers is 25, and one number is ' x ,' what is the other number?

- A) $25 + x$
- B) $25 - x$
- C) $25 * x$
- D) $x / 25$

Answer: B) $25 - x$

292. The temperature in degrees Celsius, 'C,' can be converted to Fahrenheit, 'F,' using the formula $F = (9/5)C + 32$. What is the Fahrenheit temperature if it is 20 degrees Celsius?

- A) 36°F
- B) 54°F
- C) 68°F
- D) 72°F

Answer: C) 68°F

293. A car rental company charges \$40 per day for renting a car and an additional \$20 per day for insurance. If ' x ' is the number of days a car is rented, what is the total cost, including insurance?

- A) $40x + 20$
- B) $60x$
- C) $20x + 40$
- D) $40 + 20x$

Answer: D) $40 + 20x$

294. The length of a rectangle is 4 meters more than twice its width. If the width is 'w' meters, what is the length of the rectangle?

- A) $2w - 4$
- B) $2w + 4$
- C) $4w$
- D) $4w + 2$

Answer: B) $2w + 4$

295. The sum of three consecutive odd integers is 45. What are the integers?

- A) 13, 15, 17
- B) 15, 17, 19
- C) 9, 11, 13
- D) 11, 13, 15

Answer: D) 11, 13, 15

296. The perimeter of a rectangle is 26 meters. If the width is 'x' meters and the length is 'x + 5' meters, what are the dimensions of the rectangle?

- A) 6m and 11m
- B) 6m and 5m
- C) 8m and 11m
- D) 8m and 5m

Answer: A) 6m and 11m

297. The cost of a book is \$15, and it is on sale for 20% off. What is the sale price of the book?

- A) \$12
- B) \$10
- C) \$13
- D) \$9

Answer: C) \$13

298. The area of a square is 'A' square meters. What is the length of each side of the square?

- A) $\sqrt{A}$
- B) $A / 4$
- C) $A / 2$
- D) $\sqrt{(A / 2)}$

Answer: A) $\sqrt{A}$

299. The sum of two numbers is 40, and their difference is 8. What are the two numbers?

- A) 24 and 16
- B) 26 and 14
- C) 22 and 18
- D) 30 and 10

Answer: C) 22 and 18

300. The cost of 'x' pens is \$24, and the cost of 'y' pencils is \$18. What is the total cost if you buy 'x' pens and 'y' pencils?

- A) \$42
- B) $\$18x + 24y$
- C) $\$18 + 24$
- D) $\$42xy$

Answer: B) $\$18x + 24y$

301. The height of a triangle is 5 cm more than twice its base. If the base is 'b' cm, what is the height of the triangle?

- A) $b + 2$
- B) $2b - 5$
- C) $2b + 5$
- D) $b - 2$

Answer: C) $2b + 5$

302. The sum of two consecutive integers is 47. What are the integers?

- A) 23 and 24
- B) 24 and 25
- C) 22 and 23
- D) 25 and 26

Answer: C) 22 and 23

303. The area of a triangle is 36 square centimeters, and its height is 'h' centimeters. What is the length of the base?

- A) $18/h$
- B) $h/18$
- C) $\sqrt{(36h)}$
- D) $2h$

Answer: A) $18/h$

304. A company produces 'x' widgets per day, and each widget sells for \$8. What is the total revenue if 'x' widgets are sold in a day?

- A) $8x$
- B) $x + 8$
- C) $8 - x$
- D) $8 / x$

Answer: A) $8x$

305. The sum of two consecutive odd integers is 58. What are the integers?

- A) 27 and 31
- B) 28 and 30
- C) 29 and 31
- D) 26 and 30

Answer: C) 29 and 31

306. Question: If a tank contains 600 liters of water and $\frac{3}{5}$ of the water is used, how much water is left in the tank?

A) 150 liters

B) 200 liters

C) 240 liters

D) 360 liters

Answer: B) 200 liters

307. A box of 48 crayons costs \$6. How much does one crayon cost?

a. \$0.12

b. \$0.14

c. \$0.16

d. \$0.18

308. A book costs \$12, and a bookmark costs \$0.75. If you buy both, what is the total cost?

a. \$12.75

b. \$12.00

c. \$12.50

d. \$13.00

309. You purchase 6 liters of milk at \$1.50 per liter. What is the total cost of the milk?

a. \$6.50

b. \$8.00

c. \$9.00

d. \$10.00

310. If a bag of 5 apples costs \$4, what is the cost of a single apple in the bag?

a. \$0.60

b. \$0.80

c. \$1.00

d. \$1.20

311. A dozen roses cost \$18. How much does one rose cost?

a. \$1.00

b. \$1.20

c. \$1.30

d. \$1.50

312. Question: A reservoir has 800 liters of water. If $\frac{7}{10}$ of the water is drained, how many liters of water are remaining?

A) 56 liters

B) 160 liters

C) 240 liters

D) 400 liters

Answer: C) 240 liters

313. Question: A swimming pool is filled with 750 liters of water. If $\frac{2}{3}$ of the water is used for a water balloon fight, how much water remains in the pool?

A) 250 liters

B) 375 liters

C) 500 liters

D) 600 liters

Answer: B) 375 liters

314. Question: There is a tank with 500 liters of water. If $\frac{3}{4}$ of the water is consumed, how many liters of water have been used?

A) 125 liters

B) 250 liters

C) 375 liters

D) 450 liters

Answer: C) 375 liters

315. Question: A water container holds 300 liters of water. If $\frac{4}{5}$ of the water is poured into the garden, how many liters of water are left in the container?

- A) 60 liters
- B) 120 liters
- C) 150 liters
- D) 240 liters

Answer: A) 60 liters

316. There are 180 students in a year group, and $\frac{2}{5}$ of them are on the honor roll. How many students are on the honor roll?

- A) 62
- B) 72
- C) 82
- D) 92

Answer: B) 72

317. A box contains 600 nails, and $\frac{5}{6}$ of them are rusty. How many nails are rusty?

- A) 400
- B) 450
- C) 500
- D) 550

Answer: C) 500

318. A marathon runner completes 42 kilometers in total. If she runs $\frac{3}{7}$ of the distance before taking a break, how far does she run before the break?

- A) 16 km
- B) 18 km
- C) 20 km
- D) 22 km

Answer: B) 18 km

319. If a rope is 50 meters long and a climber uses $\frac{4}{5}$ of its length, how much rope has the climber used?

- A) 30 meters
- B) 35 meters
- C) 40 meters
- D) 45 meters

Answer: C) 40 meters

320. A shop has 500 chocolates, and $\frac{9}{10}$ of them are sold during a sale. How many chocolates are sold?

- A) 400
- B) 450
- C) 475
- D) 500

Answer: B) 450

321. A train travels 900 kilometers and $\frac{7}{9}$ of the journey is completed by noon. How many kilometers has the train traveled by noon?

- A) 600
- B) 650
- C) 700
- D) 750

Answer: D) 750

322. An apple orchard has 360 trees, and $\frac{4}{9}$ of them are Red Delicious apple trees. How many are Red Delicious apple trees?

- A) 120
- B) 160
- C) 180
- D) 200

Answer: B) 160

323. A project has a budget of \$10,000 and $\frac{3}{8}$ of the budget is spent on marketing. How much money is spent on marketing?

A) \$2,500

B) \$3,000

C) \$3,750

D) \$4,250

Answer: C) \$3,750

324. There are 450 seats in a theatre and on one night, $\frac{2}{3}$ of the seats are filled. How many seats are filled?

A) 250

B) 300

C) 350

D) 400

Answer: B) 300

325. A bottle contains 750 ml of soda. If $\frac{1}{5}$ of the soda is poured into a glass, how much soda is poured?

A) 120 ml

B) 150 ml

C) 180 ml

D) 200 ml

Answer: B) 150 ml

326: What is the sum of the angles in a quadrilateral?

a) 180 degrees

b) 270 degrees

c) 360 degrees

d) 90 degrees

327: How many edges does a cube have?

- a) 6
- b) 8
- c) 12
- d) 10

328: What is the midpoint of a line segment with endpoints at (3, 4) and (7, 10)?

- a) (5, 7)
- b) (10, 14)
- c) (2, 2)
- d) (0, 0)

329: What is the volume of a cube with side length 4 cm?

- a) 16 cm^3
- b) 32 cm^3
- c) 64 cm^3
- d) 128 cm^3

330: What is the area of a circle with radius 6 meters?

- a) $12\pi \text{ m}^2$
- b) $24\pi \text{ m}^2$
- c) $36\pi \text{ m}^2$
- d) $48\pi \text{ m}^2$

331. What is this written number in numerals? Eight million, two hundred and eight thousand and fourteen

- A. 8 002 814
- B. 8 280 014
- C. 8 208 014

D. 8 200 8 014

332. What is this number in words? 7 208 014

- A. Seven million, two thousand and eight and fourteen
- B. Seven million, two hundred and eighty thousand and fourteen
- C. Seven million, two hundred and eight thousand and fourteen
- D. Seven thousand, two hundred and eight and fourteen

333. What is the value of the digit 5 in this number? 1 050 413

- A. 5 thousand
- B. 50 thousand
- C. 500 thousand
- D. 5 hundreds

334. Alex partitioned a number like this: $400\,000 + 30\,000 + 900 + 20 + 7$

What is his original number?

- A. 430 927
- B. 403 927
- C. 43 927
- D. 439 270

335. How many digits are there in 5 million?

- A. 6
- B. 8
- C. 5
- D. 7

336. $9\,470\,305 \div 1000$

- A. 94 703.05
- B. 9 470 305 000

C. 9 470.305

D. 9 470.35

337. Which number is exactly 200 000 bigger than 5 317 165?

A. 5 500 000

B. 7 317 165

C. 5 337 165

D. 5 517 165

338. The population of a city is 3 479 507. Over the next 10 years, it is predicted to fall by 300 000. What will the estimated population be in 10 years?

A. 3 179 507

B. 479 507

C. 3 779 507

D. 3 199 507

339. Put these numbers in ascending order from the smallest to the largest:

100 111, 1 000 000, 110 010, 11 101

A. 1 000 000 , 100 111 , 110 010 , 11 101

B. 1 000 000 , 110 010 , 11 101 , 100 111

C. 11 101, 110 010, 100 111 , 1 000 000

D. 11 101, 100 111, 110 010, 1 000 000

340. What is the missing number in the calculation?

$2\,131\,071 = 2\,000\,000 + \text{_____} + 30\,000 + 1000 + 70 + 1$

A. 1

B. 10 000

C. 100 000

D. 1 000 000

341. What is the difference between 5 035 149 and 5 038 149?

- A. 30 000
- B. 3 000
- C. 300
- D. 300 000

342. 30.073×100

- A. 3 007.3
- B. 30 073
- C. 0.30073
- D. 30.07300

343. Round the following number to the nearest 100 000: 6 729 675

- A. 6 730 000
- B. 7 000 000
- C. 6 800 000
- D. 6 700 000

344. Which digit is in the hundredths place?

2.047

- A. 2
- B. 0
- C. 4
- D. 7

345. Choose the correct words and symbols to be put into the space to make this statement correct.

-456 _____ -379

- A. Is greater than ($<$)
- B. Is greater than ($>$)

- C. Is less than ($<$)
- D. Is less than ($>$)

346. Which decimal number has the largest value?

- A. 0.41
- B. 0.3
- C. 0.402
- D. 0.395

347. Which number below shows three tenths?

- A. 30
- B. 0.3
- C. 0.03
- D. 0.003

348. Which number is exactly 30 000 smaller than 2 713 109?

- A. 2 413 109
- B. 2 683 109
- C. 2 710 109
- D. 2 743 109

349. What is the difference between 7 301 438 and 7 281 438?

- A. 120 000
- B. 2
- C. 121 438
- D. 20 000

350. Round this number to the nearest 2 decimal places: 183.765

- A. 183.8
- B. 183.76

- C. 184
- D. 183.77

351. What is the difference between 14 and -34 ?

- A. 20
- B. 48
- C. -20
- D. -48

352. Sara has one of these four cards: 775 105, 778 013, 765 101, 772 989

She says, “When I round my number to the nearest 10 000, I get 770 000”. Which cards could be Sara’s card?

- A. 775 105, 778 013 and 772 989
- B. All of them
- C. 765 101 and 772 989
- D. 772 989

353. The population of London is 8.674 million people. The population of San Francisco is approximately 10 times smaller than London.

What is the approximate population of San Francisco?

- A. 0.08674 million people
- B. 867 400 people
- C. 86.74 million people
- D. 867.4 million people

354. A truck has a weight limit of 2,000 kg and it’s currently carrying $\frac{3}{4}$ of the maximum load. How much weight is it carrying?

- A) 1,400 kg
- B) 1,500 kg
- C) 1,600 kg
- D) 1,700 kg

Answer: B) 1,500 kg

355. A store sells 24 pencils for \$0.25 each. What is the total cost of the pencils?

- a. \$5.00
- b. \$4.75
- c. \$6.00
- d. \$7.00

356. If a dozen eggs costs \$2.40, what is the cost of a single egg?

- a. \$0.15
- b. \$0.20
- c. \$0.25
- d. \$0.30

357. You buy 10 cans of soda for \$5. What is the cost per can of soda?

- a. \$0.25
- b. \$0.40
- c. \$0.50
- d. \$0.75

358. A bag of 50 marbles costs \$10. What is the cost of a single marble in the bag?

- a. \$0.15
- b. \$0.20
- c. \$0.25
- d. \$0.30

359. If a shirt costs \$20, and a tie costs \$8, what is the total cost if you buy both the shirt and the tie?

- a. \$25
- b. \$26

c. \$28

d. \$30

360. Question: If a pair of shoes costs GH¢ 45.00, and you have GH¢ 25.00, how much more money do you need to buy the shoes?

A) GH¢ 10.00

B) GH¢ 20.00

C) GH¢ 45.00

D) GH¢ 5.00

Answer: A) GH¢ 10.00

361. Question: Sarah wants to buy a bicycle that costs GH¢ 120.00. She currently has GH¢ 85.00. How much additional money does she need to buy the bicycle?

A) GH¢ 30.00

B) GH¢ 35.00

C) GH¢ 45.00

D) GH¢ 25.00

Answer: B) GH¢ 35.00

362. Question: A smartphone costs GH¢ 400.00, and you have GH¢ 250.00. How much more money is needed to purchase the smartphone?

A) GH¢ 150.00

B) GH¢ 200.00

C) GH¢ 50.00

D) GH¢ 100.00

Answer: B) GH¢ 200.00

363. Question: If a video game console is priced at GH¢ 300.00 and you have GH¢ 120.00, how much additional money do you need to buy the console?

A) GH¢ 120.00

B) GH¢ 150.00

C) GH¢ 200.00

D) GH¢ 180.00

Answer: C) GH¢ 200.00

364. Question: Emily wants to purchase a dress for GH¢ 60.00. She has GH¢ 45.00. How much more money does she need to buy the dress?

A) GH¢ 10.00

B) GH¢ 20.00

C) GH¢ 15.00

D) GH¢ 25.00

Answer: C) GH¢ 15.00

365. Question: A toy costs GH¢ 25.00, and you currently have GH¢ 10.00. How much additional money do you need to purchase the toy?

A) GH¢ 15.00

B) GH¢ 5.00

C) GH¢ 20.00

D) GH¢ 25.00

Answer: A) GH¢ 15.00

366. Question: David wants to buy a computer for GH¢ 800.00. He has GH¢ 550.00. How much more money does he need to buy the computer?

A) GH¢ 200.00

B) GH¢ 350.00

C) GH¢ 450.00

D) GH¢ 250.00

Answer: C) GH¢ 450.00

367. Question: If a concert ticket costs GH¢ 50.00, and you have GH¢ 30.00, how much more money do you need to attend the concert?

A) GH¢ 10.00

- B) GH¢ 20.00
- C) GH¢ 50.00
- D) GH¢ 15.00

Answer: B) GH¢ 20.00

368. Question: Maria is saving to buy a camera that costs GH¢ 350.00. She has saved GH¢ 275.00. How much additional money does she need to purchase the camera?

- A) GH¢ 75.00
- B) GH¢ 100.00
- C) GH¢ 50.00
- D) GH¢ 25.00

Answer: A) GH¢ 75.00

369. Question: A pair of headphones costs GH¢ 60.00, and you have GH¢ 40.00. How much more money is needed to buy the headphones?

- A) GH¢ 30.00
- B) GH¢ 20.00
- C) GH¢ 10.00
- D) GH¢ 60.00

Answer: B) GH¢ 20.00

370. Question: The sum of two consecutive even integers is 34. What are the integers?

- a) 15, 17
- b) 16, 18
- c) 17, 19
- d) 18, 20

Answer: c) 17, 19

371. Question: The perimeter of a rectangle is 38 meters. If the length is 12 meters, what is the width?

- a) 7 meters

- b) 8 meters
- c) 9 meters
- d) 10 meters

Answer: b) 8 meters

372. Question: Mary bought a shirt for \$25 and a pair of jeans for \$40. She spent a total of \$85. What is the cost of the shirt in dollars?

- a) \$30
- b) \$35
- c) \$40
- d) \$45

Answer: a) \$30

373. Question: The sum of three consecutive odd integers is 51. What are the integers?

- a) 15, 17, 19
- b) 17, 19, 21
- c) 19, 21, 23
- d) 21, 23, 25

Answer: b) 17, 19, 21

374. Question: If 5 times a number is decreased by 8, the result is 22. Find the number.

- a) 6
- b) 8
- c) 10
- d) 12

Answer: d) 12

375. Question: The sum of two numbers is 45. If one-third of the first number is added to the second number, the result is 30. Find the two numbers.

- a) 10, 35

b) 15, 30

c) 20, 25

d) 25, 20

Answer: c) 20, 25

376. Question: The difference between a number and 12 is equal to one-fourth of the number. Find the number.

a) 8

b) 12

c) 16

d) 20

Answer: c) 16

377. Question: The sum of a number and its square is equal to 90. Find the number.

a) 9

b) 10

c) 11

d) 12

Answer: b) 10

378. Question: The temperature in Fahrenheit is 20 degrees less than four times the temperature in Celsius. If the Fahrenheit temperature is 68 degrees, what is the Celsius temperature?

a) 10°C

b) 15°C

c) 20°C

d) 25°C

Answer: b) 15°C

379. Question: A company sells a product for \$50, and the total revenue from selling x units is given by $R(x) = 50x$. If the company's revenue is \$3,000, how many units were sold?

a) 50

b) 60

c) 70

d) 80

Answer: c) 70

380. Question: Maria needs at least \$500 to buy a laptop. She already has \$350 saved. What inequality represents the amount she still needs to save (x represents the amount she needs to save)?

a) $x + 350 \geq 500$

b) $350 - x \geq 500$

c) $x - 350 \geq 500$

d) $x \leq 500 - 350$

Answer: d) $x \leq 500 - 350$

381. Question: The cost of printing x books is given by $C(x) = 3x + 100$. What is the cost of printing 20 books?

a) \$60

b) \$100

c) \$120

d) \$160

Answer: c) \$120

382. Question: The sum of a number and 6 is less than or equal to twice the number. Find the inequality that represents this situation (x represents the number).

a) $x + 6 \leq 2x$

b) $x + 6 \geq 2x$

c) $x \leq 2x + 6$

d) $x \geq 2x + 6$

Answer: a) $x + 6 \leq 2x$

383. Question: The cost of a movie ticket is \$12.50. Cindy has \$50 to spend on tickets. How many tickets (t) can she buy without going over her budget? Write the inequality.

- a) $12.5t \leq 50$
- b) $12.5t \geq 50$
- c) $t \leq 50 - 12.5$
- d) $t \geq 50 + 12.5$

Answer: a) $12.5t \leq 50$

384. Question: The length of a rectangle is 8 meters more than twice its width. If the width is w, which equation represents the length of the rectangle (l)?

- a) $l = 2w + 8$
- b) $l = 2w - 8$
- c) $l = 8w + 2$
- d) $l = 8w - 2$

Answer: a) $l = 2w + 8$

385. A tank contains 300 liters of water. If $\frac{3}{4}$ of the water is used, how much water is used?

- A) 200 L
- B) 225 L
- C) 250 L
- D) 275 L

Answer: B) 225 L

386. A bar of chocolate is divided into 24 squares. If someone eats $\frac{5}{8}$ of the bar, how many squares are eaten?

- A) 12
- B) 15
- C) 20
- D) 22

Answer: B) 15

387. What is the value of this Roman numeral?

MMDCXLVII

A. 2 467

B. 2 5147

C. 3 947

D. 2 647

388. A number rounded to the nearest 100 000 is 8 000 000

What is the largest number it could be?

A. 7 999 999

B. 7 599 999

C. 8 049 999

D. 8 099 999

389. Given sets $A = \{p, q, r\}$, $B = \{r, s\}$, and $C = \{s, t\}$, what is $A \times (B \cup C)$?

A. $\{(p, r), (p, s), (p, t), (q, r), (q, s), (q, t), (r, r), (r, s), (r, t)\}$

B. $\{(p, r), (q, s), (r, t)\}$

C. $\{(p, s), (q, t)\}$

D. $\{(p, p), (q, q), (r, r), (s, s), (t, t)\}$

Answer: A

390. What is the set operation that represents the set of all possible ordered pairs where the first element is from set A and the second element is from either B or C?

A. $A \times (B \cup C)$

B. $(A \times B) \cup (A \times C)$

C. $(A \cup B) \times (A \cup C)$

D. $A \times (B \cap C)$

Answer: A

391. If A represents the set of math textbooks, B represents the set of science textbooks, and C represents the set of literature textbooks in a library, what does $A \times (B \cup C)$ represent?

- A. Math and science textbooks
- B. Math textbooks borrowed with either science or literature textbooks
- C. The intersection of math textbooks and science or literature textbooks
- D. None of the above

Answer: B

392. In market analysis, A represents the set of customers interested in product A, B represents the set of customers interested in product B, and C represents the set of customers interested in product C. What does $A \times (B \cup C)$ represent in this context?

- A. Customers interested in product A or B
- B. Customers who have purchased both product A and either product B or C
- C. Customers who have purchased product A, and some of them may have purchased either product B or C
- D. None of the above

Answer: B

393. Suppose A represents a set of online shoppers, B represents a set of shoppers who prefer credit card payments, and C represents a set of shoppers who prefer PayPal. What does $A \times (B \cup C)$ represent in the context of an e-commerce platform?

- A. Online shoppers who prefer credit card or PayPal payments
- B. Online shoppers who have made a purchase using either a credit card or PayPal
- C. Online shoppers who have made a purchase using a credit card, and some may have used PayPal
- D. None of the above

Answer: B

394. In a university's course offerings, if A represents the set of mathematics courses, B represents the set of computer science courses, and C represents the set of elective courses, what does $A \times (B \cup C)$ represent?

- A. Math and computer science courses
- B. Math courses combined with either computer science or elective courses

- C. The intersection of math courses and computer science or elective courses
- D. None of the above

Answer: B

395. In a retail store, if A represents the set of available products, B represents the set of products in high demand, and C represents the set of products on sale, what does $A \times (B \cup C)$ represent in terms of inventory management?

- A. Available products that are in high demand or on sale
- B. Available products with a potential high demand or sale status
- C. Available products that are both in high demand and on sale
- D. None of the above

Answer: B

396. In a social media marketing campaign, if A represents the set of target audience members, B represents the set of users who engage with posts, and C represents the set of users who share posts, what does $A \times (B \cup C)$ represent in terms of campaign reach?

- A. Target audience members who engage with posts or share posts
- B. Potential reach to target audience members who may engage with posts or share posts
- C. Target audience members who both engage with and share posts
- D. None of the above

Answer: B

397. In urban transportation planning, if A represents the set of road networks, B represents the set of bus routes, and C represents the set of subway lines, what does $A \times (B \cup C)$ represent in terms of transit options?

- A. Road networks that include both bus routes and subway lines
- B. Road networks with potential intersections with bus routes or subway lines
- C. Road networks that intersect with either bus routes or subway lines
- D. None of the above

Answer: B

398. In a university library, if A represents the set of available books, B represents the set of reference books, and C represents the set of periodicals, what does $A \times (B \cup C)$ represent in the context of library holdings?

- A. Available books that are reference books or periodicals
- B. Available books with potential reference or periodical status
- C. Available books that can be categorized as either reference books or periodicals
- D. None of the above

Answer: B

399. In a healthcare network, if A represents the set of medical facilities, B represents the set of primary care services, and C represents the set of specialty services, what does $A \times (B \cup C)$ represent in terms of healthcare offerings?

- A. Medical facilities offering both primary care and specialty services
- B. Medical facilities that may offer primary care or specialty services
- C. Medical facilities providing primary care and having the potential to provide specialty services
- D. None of the above

Answer: B

400. In an online education platform, if A represents the set of courses, B represents the set of video lectures, and C represents the set of quizzes, what does $A \times (B \cup C)$ represent in terms of course content?

- A. Courses that include both video lectures and quizzes
- B. Courses that may include video lectures or quizzes
- C. Courses that provide video lectures and have the potential to include quizzes
- D. None of the above

Answer: B

401. The common factor of x^2y^2 and x^3y^3 is

- (a) x^2y^2
- (b) x^3y^3
- (c) x^2y^3

(d) x^3y^2 .

Answer: (a) x^2y^2

402. The common factor of x^3y^2 and x^4y is

(a) x^4y^2

(b) x^4y

(c) x^3y^2

(d) x^3y .

Answer: (d) x^3y .

403. The common factor of a^2m^4 and a^4m^2 is

(a) a^4m^4

(b) a^2m^2

(c) a^2m^4

(d) a^4m^2

Answer: (b) a^2m^2

404. The common factor of p^3q^4 and p^4q^3 is

(a) p^4q^4

(b) p^4q^3

(c) p^3q^3

(d) p^3q^4

Answer: (c) p^3q^3

405. The common factor $12y$ and 30 is

(a) 6

(b) 12

(c) 30

(d) $6y$.

Answer: (a) 6

406. The common factor of $2x$, 3×3 , 4 is

- (a) 1
- (b) 2
- (c) 3
- (d) 4.

Answer: (a) 1

407. The common factor of $10ab$, $30bc$, $50ca$ is

- (a) 10
- (b) 30
- (c) 50
- (d) abc .

Answer: (a) 10

408. The common factor of $14a^2b$ and $35a^4b^2$ is

- (a) a^4b^2
- (b) $35a^4b^2$
- (c) $14a^2b$
- (d) $7a^2b$.

Answer: (d) $7a^2b$.

409. The common factor of $8a^2b^4c^2$, $12a^4bc^4$ and $20a^3b^4$ is

- (a) a^4b^4
- (b) a^2b^2
- (c) $4a^2b^2$
- (d) $4a^2b$.

Answer: (d) $4a^2b$.

410. The common factor of $6a^3b^4c^2$, $21a^2b$ and $15a^3$ is

(a) $3a^2$

(b) $3a^3$

(c) $6a^3$

(d) $6a^2$

Answer: (a) $3a^2$

411. The common factor of $2a^2b^4c^2$, $8a^4b^3c^4$ and $6a^3b^4c^2$ is

(a) $2a^2b^3c^2$

(b) $6a^2b^3c^2$

(c) $8a^2b^3c^2$

(d) $a^4b^4c^4$.

Answer: (a) $2a^2b^3c^2$

412. The common factor of $3a^2b^4c^2$, $12b^2c^4$ and $15a^3b^4c^4$ is

(a) b^4c^4

(b) $3b^2c^2$

(c) $15b^2c^4$

(d) $12b^2c^4$

Answer: (b) $3b^2c^2$

413. The common factor of $24x^3y^4$, $36x^4z^4$ and $48x^3y^2z$ is

(a) 12×3

(b) 24×3

(c) 36×3

(d) 48×3

Answer: (a) 12×3

414. The common factor of $72x^3y^4z^4$, $120z^2d^4x^4$ and $96y^3z^4d^4$ is

(a) $96z^3$

(b) $120z^3$

(c) $72z^3$

(d) $24z^2$.

Answer: (d) $24z^2$

415. The common factor of $36p^2q^3x^4$, $48pq^3x^2$ and $54p^3q^3x^4$ is

(a) $6pq^3x^2$

(b) $36pq^3x^2$

(c) $54pq^3x^2$

(d) $48pq^3x^2$

Answer: (a) $6pq^3x^2$

416. The factorisation of $12a^2b + 15ab^2$ is

(a) $3ab(4a + 5b)$

(b) $3a^2b(4a + 5b)$

(c) $3ab^2(4a + 5b)$

(d) $3a^2b^2(4a + 5b)$.

Answer: (a) $3ab(4a + 5b)$

417. The factorisation of $10x^2 - 18x + 4$ is

(a) $2x^2(7x^2 - 9x + 5)$

(b) $2x(7x^2 - 9x + 5)$

(c) $2(7x^2 - 9x + 5)$

(d) $2x^3(7x^2 - 9x + 5)$.

Answer: (a) $2x^2(7x^2 - 9x + 5)$

418. The factorisation of $6x - 42$ is

(a) $6(x - 7)$

(b) $3(x - 7)$

(c) $2(x - 7)$

(d) $6(x + 7)$

Answer: (a) $6(x - 7)$

419. The factorisation of $6x + 12y$ is

- (a) $6(x + 2y)$
- (b) $3(x + 4y)$
- (c) $2(3x + 12y)$
- (d) none of these.

Answer: (a) $6(x + 2y)$

420. The factorisation of $28a^3b^5 - 42a^5b^3$ is

- (a) $14a^3b^3(2b^2 - 3a^2)$
- (b) $14a^2b^3(2b^2 - 3a^2)$
- (c) $14a^3b^2(2b^2 - 3a^2)$
- (d) none of these.

Answer: (a) $14a^3b^3(2b^2 - 3a^2)$

421. The factorisation of $a^3 + a^2b + ab^2$ is

- (a) $a(a^2 + ab + b^2)$
- (b) $6(a^2 + ab + b^2)$
- (c) $ab(a^2 + ab + b^2)$
- (d) none of these.

Answer: (a) $a(a^2 + ab + b^2)$

422. The factorisation of $x^2yz + xy^2z + xyz^2$ is

- (a) $xyz(x + y + z)$
- (b) $x^2yz(x + y + z)$
- (c) $xy^2z(x + y + z)$
- (d) $xyz^2(x + y + z)$.

Answer: (a) $xyz(x + y + z)$

423. The factorisation of $ax^2y + bxy^2 + cxyz$ is

- (a) $xy(ax + by + cz)$
- (b) $axy(ax + by + cz)$
- (c) $bxy(ax + by + cz)$
- (d) $cxy(ax + by + cz)$.

Answer: (a) $xy(ax + by + cz)$

424. The factorisation of

$a(x + y + z) + b(x + y + z) + c(x + y + z)$ is

- (a) $(a + b + c)(x + y + z)$
- (b) $(ab + bc + ca)(x + y + z)$
- (c) $(xy + yz + zx)(a + b + c)$
- (d) none of these.

Answer: (a) $(a + b + c)(x + y + z)$

425. The factorisation of $6xy - 4y + 6 - 9x$ is

- (a) $(3x - 2)(2y - 3)$
- (b) $(3x + 2)(2y - 3)$
- (c) $(3x - 2)(2y + 3)$
- (d) $(3x + 2)(2y + 3)$.

Answer: (a) $(3x - 2)(2y - 3)$

426. The factorisation of $x^2 + xy + 2x + 2y$ is

- (a) $(x + 2)(x + y)$
- (b) $(x + 2)(x - y)$
- (c) $(x - 2)(x + y)$
- (d) $(x - 2)(x - y)$.

Answer: (a) $(x + 2)(x + y)$

427. The factorisation of $ax + bx - ay - by$ is

(a) $(x - y)(a + b)$

(b) $(x + y)(a + b)$

(c) $(x - y)(a - b)$

(d) $(x + y)(a - b)$.

Answer: (a) $(x - y)(a + b)$

428. The factorisation of $ab - a - b + 1$ is

(a) $(a - 1)(b - 1)$

(b) $(a + 1)(b + 1)$

(c) $(a - 1)(b + 1)$

(d) $(a + 1)(b - 1)$.

Answer: (a) $(a - 1)(b - 1)$

429. The factorisation of

$x^2 + x + xy + y + zx + z$ is

(a) $(x + y + z)(x + 1)$

(b) $(x + y + z)(x + y)$

(c) $(x + y + z)(y + z)$

(d) $(x + y + z)(z + x)$.

Answer: (a) $(x + y + z)(x + 1)$

430. The factorisation of $x^2y^2 + xy + xy^2z + yz + x^2yz + xz$ is

(a) $(xy + yz + zx)(xy + 1)$

(b) $(xy + yz + zx)(yz + 1)$

(c) $(xy + yz + zx)(zx + 1)$

(d) none of these.

Answer: (a) $(xy + yz + zx)(xy + 1)$

431. The factorisation of $x^2 + 8x + 16$ is

(a) $(x + 2)^2$

(b) $(x + 4)^2$

(c) $(x - 2)^2$

(d) $(x - A)^2$

Answer: (b) $(x + 4)^2$

432. The factorisation of $4y^2 - 12y + 9$ is

(a) $(2y + 3)^2$

(b) $(2y - 3)^2$

(c) $(3y + 2)^2$

(d) $(3y - 2)^2$

Answer: (b) $(2y - 3)^2$

433. The factorisation of $49p^2 - 36$ is

(a) $(7p + 6)(7p - 6)$

(b) $(6p + 7)(6p - 7)$

(c) $(7p + 6)^2$

(d) $(7p - 6)^2$

Answer: (a) $(7p + 6)(7p - 6)$

434. The factorisation of $y^2 - 7y + 12$ is

(a) $(y + 3)(y + 4)$

(b) $(y + 3)(y - 4)$

(c) $(y - 3)(y + 4)$

(d) $(y - 3)(y - 4)$.

Answer: (d) $(y - 3)(y - 4)$

435. The factorisation of $z^2 - 4z - 12$ is

(a) $(z + 6)(z + 2)$

(b) $(z - 6)(z - 2)$

(c) $(z - 6)(z + 2)$

(d) $(z + 6)(z - 2)$.

Answer: (c) $(z - 6)(z + 2)$

436. The factorisation of $am^2 + bm^2 + bn^2 + an^2$ is

(a) $(a + b)(m^2 - n^2)$

(b) $(a + b)(m^2 + n^2)$

(c) $(a - b)(m^2 + n^2)$

(d) $(a - b)(m^2 - n^2)$.

Answer: (b) $(a + b)(m^2 + n^2)$

437. The factorisation of $(lm + l) + m + 1$ is

(a) $(l + 1)(m + 1)$

(b) $(l - 1)(m - 1)$

(c) $(l + 1)(m - 1)$

(d) $(l - 1)(m + 1)$.

Answer: (a) $(l + 1)(m + 1)$

438. The factorisation of $(l + m)^2 - 4lm$ is

(a) $(l - m)^2$

(b) $(l + m - 2)^2$

(c) $(l + m + 2)^2$

(d) none of these.

Answer: (a) $(l - m)^2$

439. The factorisation of

$1 + p + q + r + pq + qr + pr + pqr$ is

(a) $(1 + p)(1 + q)(1 + r)$

(b) $(1 - p)(1 - q)(1 - r)$

(c) $(1 - p)(1 - q)(1 + r)$

(d) $(1 + p)(1 - q)(1 - r)$.

Answer: (a) $(1 + p)(1 + q)(1 + r)$

440. $0.645 \times 0.645 + 2 \times 0.645 \times 0.355 + 0.355 \times 0.355$ is

- (a) 1
- (b) 0
- (c) -1
- (d) 2.

Answer: (a) 1

441. The factorisation $1 + 16x + 64x^2$ is

- (a) $(1 - 8x)^2$
- (b) $(1 + 8x)^2$
- (c) $(8 - x)^2$
- (d) $(8 + x)^2$

Answer: (b) $(1 + 8x)^2$

442. The factorisation $x^2 + x + 14$ is

- (a) $(x^2 - 1)^2$
- (b) $(x^2 + 1)^2$
- (c) $(x + 12)^2$
- (d) $(x - 12)^2$

Answer: (c) $(x + 12)^2$

443. The value of 992 is

- (a) $(90)^2 + 2(90)(9) + (9)^2$
- (b) $(90)^2 - 2(90)(9) + (9)^2$
- (c) $(90)^2 + (9)^2$
- (d) none of these.

Answer: (a) $(90)^2 + 2(90)(9) + (9)^2$

444. The factorisation of $(x^2y^2 - 2 + y^2x^2)$ $x \neq 0, y \neq 0$ is

- (a) $(xy + yx)^2$
- (b) $(xy - yx)^2$
- (c) $(xy - 1)^2$
- (d) $(xy + 1)^2$

Answer: (b) $(xy - yx)^2$

445. The value of $0.73 \times 0.73 \times -0.27 \times 0.27$ $0.73 - 0.27$ is

- (a) 1
- (b) 0
- (c) 0.73
- (d) 0.27.

Answer: (a) 1

446. The factorisation of $x^2 - 9$ is

- (a) $(x - 3)^2$
- (b) $(x + 3)^2$
- (c) $(x + 3)(x - 3)$
- (d) none of these.

Answer: (c) $(x + 3)(x - 3)$

447. The factorisation of $36x^2y^2 - 1$ is

- (a) $(6xy - 1)(6xy + 1)$
- (b) $(6xy - 1)^2$
- (c) $(6xy + 1)^2$
- (d) $(6 + xy)^2$

Answer: (a) $(6xy - 1)(6xy + 1)$

448. The value of $0.564 \times 0.564 \times -0.436 \times 0.436$ $0.564 - 0.436$ is

- (a) 0
- (b) 1
- (c) -1
- (d) none of these.

Answer: (b) 1

449. The value of $(0.68)^2 - (0.32)^2$ is

- (a) -1
- (b) 0
- (c) 1
- (d) 0.36.

Answer: (d) 0.36.

450. The factorisation of $3x^2 + 10x + 8$ is

- (a) $(3x + 4)(x + 2)$
- (b) $(3x - 4)(x - 2)$
- (c) $(3x + 4)(x - 2)$
- (d) $(3x - 4)(x + 2)$.

Answer: (a) $(3x + 4)(x + 2)$

451. The factorisation of $3x^2 - 16x + 16$ is

- (a) $(x - 4)(3x - 4)$
- (b) $(x + 4)(3x + 4)$
- (c) $(x - 4)(3x + 4)$
- (d) $(x + 4)(3x - 4)$.

Answer: (a) $(x - 4)(3x - 4)$

452. The factorisation of $6x^2 - 5x - 6$ is

- (a) $(2x - 3)(3x + 2)$
- (b) $(2x + 3)(3x + 2)$

(c) $(2x - 3)(3x - 2)$

(d) $(2x + 3)(3x - 2)$.

Answer: (a) $(2x - 3)(3x + 2)$

453. The factorisation of $6 - x - 2x^2$ is

(a) $(2 + x)(3 - 2x)$

(b) $(2 + x)(3 + 2x)$

(c) $(2 - x)(3 - 2x)$

(d) $(2 - x)(3 + 2x)$.

Answer: (a) $(2 + x)(3 - 2x)$

454. If $x^2 - x - 42 = (x + k)(x + 6)$, then $k =$

(a) 6

(b) -6

(c) 7

(d) -7.

Answer: (d) -7

455. The value of $3.5 \times 3.5 - 2.5 \times 2.5$ is

(a) -6

(b) 6

(c) 60

(d) 1.

Answer: (b) 6

456. If $(x - 1x)^2 = x^2 + a + 1 \times 2$ then $a =$

(a) -2

(b) 2

(c) $2x$

(d) $-2x$

Answer: (a) -2

457. If $x = 2$, $y = -1$ then the value of $x^2 - 4xy + 4y^2$ is

(a) 0

(b) 1

(c) -1

(d) 2

Answer: (a) 0

458. The quotient of $28x^2 + 14x$ is

(a) 2

(b) $2x$

(c) x

(d) x^2

Answer: (b) $2x$

459. The quotient of $12a^8b^8 + (-a^6b^6)$ is

(a) $3a^2b^2$

(b) $3a^2b$

(c) $3ab^2$

(d) $-3a^2b^2$

Answer: (d) $-3a^2b^2$

460. The factorisation of $12a^2b + 15ab^2$ gives:

(a) $3ab(4ab + 5)$

(b) $3ab(4a + 5b)$

(c) $3a(4a + 5b)$

(d) $3b(4a + 5b)$

Answer: (b) $3ab(4a + 5b)$

461. The factorisation of $12x + 36$ is

- (a) $12(x + 3)$
- (b) $12(3x)$
- (c) $12(3x + 1)$
- (d) $x(12 + 36x)$

Answer: (a) $12(x + 3)$

462. On factorising $14pq + 35pqr$, we get:

- (a) $pq(14 + 35r)$
- (b) $p(14q + 35qr)$
- (c) $q(14p + 35pr)$
- (d) $7pq(2 + 5r)$

Answer: (d) $7pq(2 + 5r)$

463. The factors of $6xy - 4y + 6 - 9x$ are:

- (a) $(3x + 2)(2y + 3)$
- (b) $(3x - 2)(2y - 3)$
- (c) $(3x - 2)(2y + 3)$
- (d) $(3x + 2)(2y - 3)$

Answer: (b) $(3x - 2)(2y - 3)$

464. The factors of $x^2 + xy + 8x + 8y$ are:

- (a) $(x + y)(x + 8)$
- (b) $(2x + y)(x + 8)$
- (c) $(x + 2y)(x + 8)$
- (d) $(x + y)(2x + 8)$

Answer: (a) $(x + y)(x + 8)$

465. The factors of $4y^2 - 12y + 9$ is:

- (a) $(2y + 3)^2$

- (b) $(2y - 3)^2$
- (c) $(2y - 3)(2y + 3)$
- (d) None of the above

Answer: (b) $(2y-3)^2$

466. The factors of $49p^2 - 36$ are:

- (a) $(7p + 6)^2$
- (b) $(7p - 6)^2$
- (c) $(7p - 6)(7p + 6)$
- (d) None of the above

Answer: (c) $(7p - 6)(7p + 6)$

467. The factors of $m^2 - 256$ are:

- (a) $(m + 4)^2$
- (b) $(m - 4)^2$
- (c) $(m - 4)(m + 4)$
- (d) None of the above

Answer: (d) None of the above

468. When we factorise $x^2 + 5x + 6$, then we get:

- (a) $(x + 2)(x + 3)$
- (b) $(x - 2)(x - 3)$
- (c) $(x \times 2) + (x \times 3)$
- (d) $(x \times 2) - (x \times 3)$

Answer: (a) $(x + 2)(x + 3)$

469. The factors of $3m^2 + 9m + 6$ are:

- (a) $(m + 1)(m + 2)$
- (b) $3(m + 1)(m + 2)$
- (c) $6(m + 1)(m + 2)$

(d) $9(m + 1)(m + 2)$

Answer: (b) $3(m + 1)(m + 2)$

470. The value of 492 is

(a) $(50)^2 - 2(50)(1) + (1)^2$

(b) $(50)^2 + 2(50)(1) + (1)^2$

(c) $(50)^2 - (1)^2$

(d) $(50)^2 + (1)^2$

Answer: (a) $(50)^2 - 2(50)(1) + (1)^2$

471. In a customer support system, if A represents the set of customer inquiries, B represents the set of phone calls, and C represents the set of email inquiries, what does $A \times (B \cup C)$ represent in terms of communication channels?

A. Customer inquiries received through phone calls or email

B. Customer inquiries that may be received via phone calls or email

C. Customer inquiries that are received via phone calls and may also be received via email

D. None of the above

Answer: B

472. The factorisation of $12x+36$ is

A. $12(x+3)$

B. $12(3x)$

C. $12(3x+1)$

D. $x(12+36x)$

Answer: A

473. On factorising $14pq + 35pqr$, we get:

A. $pq(14+35r)$

B. $p(14q+35qr)$

C. $q(14p+35pr)$

D. $7pq(2+5r)$

Answer: D

474. The factors of $6xy - 4y + 6 - 9x$ are:

A. $(3x + 2)(2y + 3)$

B. $(3x - 2)(2y - 3)$

C. $(3x - 2)(2y + 3)$

D. $(3x - 2)(2y - 3)$

Answer: B

475. The factors of $x^2 + xy + 8x + 8y$ are:

A. $(x+y)(x+8)$

B. $(2x+y)(x+8)$

C. $(x+2y)(x+8)$

D. $(x+y)(2x+8)$

Answer: A

476. The factors of $4y^2 - 12y + 9$ is:

A. $(2y+3)^2$

B. $(2y-3)^2$

C. $(2y-3)(2y+3)$

D. None of the above

Answer: B

477. The factors of $49p^2 - 36$ are:

A. $(7p+6)^2$

B. $(7p-6)^2$

C. $(7p - 6)(7p + 6)$

D. None of the above

Answer: C

478. The factors of $m^2 - 256$ are:

A. $(m + 4)^2$

B. $(m - 4)^2$

C. $(m - 4)(m + 4)$

D. None of the above

Answer: D

479. When we factorise $x^2 + 5x + 6$, then we get:

A. $(x + 2)(x + 3)$

B. $(x - 2)(x - 3)$

C. $(x \times 2) + (x \times 3)$

D. $(x \times 2) - (x \times 3)$

Answer: A

480. The factors of $3m^2 + 9m + 6$ are:

A. $(m + 1)(m + 2)$

B. $3(m + 1)(m + 2)$

C. $6(m + 1)(m + 2)$

D. $9(m + 1)(m + 2)$

Answer: B

481. The common factor of a^3b^3 and ab^2 is:

A. a^2b^2

B. ab^2

C. a^2b

D. ab

Answer: B. ab^2

482. The common factor of a^3b^2 and a^4b is:

A. a^4b^2

B. a^4b

C. a^3b^2

D. a^3b

Answer: D. a^3b

483. The common factor $12a$ and 30 is:

A. 6

B. 12

C. 30

D. $6a$

Answer: A. 6

484. The common factors of $10a$, $20b$ and $30c$ are:

A. ab

B. ac

C. $10abc$

D. 10

Answer: 10

485. The common factor of $6x^3y^4z^2$, $21x^2y$ and $15x^3$ is:

A. 3×2

B. 3×3

C. 6×3

D. 6×2

Answer: A. 3×2

486. The common factor of $24a^3b^4$, $36a^4c^4$ and $48a^3b^2c$ is:

- A. $12a^3$
- B. $24a^3$
- C. $36a^3$
- D. $48a^3$

487. The factorisation of $12x^2y + 15xy^2$ is:

- A. $3xy^2(4x + 5y)$
- B. $3x^2y(4x + 5y)$
- C. $3xy(4x + 5y)$
- D. $3x^2y^2(4x + 5x)$

Answer: C. $3xy(4x + 5y)$

488. The factorisation of $5x - 20$ is:

- A. $5(x-5)$
- B. $5(x-4)$
- C. $5(x-3)$
- D. $5(x-20)$

Answer: B. $5(x-4)$

489. The factorisation of $8x + 4y$ is:

- A. $8(x+4y)$
- B. $4(2x+4y)$
- C. $8(x+y)$
- D. $4(2x+y)$

Answer: D. $4(2x + y)$

490. The factors of xyz are:

- A. x

- B. y
- C. z
- D. All of the above

Answer: D.

491. The factorisation of $12a^2b+15ab^2$ gives:

- A. $3ab(4ab+5)$
- B. $3ab(4a+5b)$
- C. $3a(4a+5b)$
- D. $3b(4a + 5b)$

Answer: B

492. What does the Cartesian product $A \times (B \cup C)$ represent in set theory?

- A. The intersection of sets A and $B \cup C$
- B. The union of sets A and $B \cup C$
- C. The set of all possible ordered pairs where the first element is from set A and the second element is from either B or C.
- D. The complement of sets A, B, and C

Answer: C

493. If $A = \{a, b\}$ and $B = \{b, c\}$ and $C = \{c, d\}$, what is $A \times (B \cup C)$?

- A. $\{(a, b), (a, c), (a, d), (b, b), (b, c), (b, d)\}$
- B. $\{(a, b), (b, c), (c, d)\}$
- C. $\{(a, c), (b, d)\}$
- D. $\{(a, a), (b, b), (c, c), (d, d)\}$

Answer: A

494. Which set operation is equivalent to $A \times (B \cup C)$?

- A. $A \times B \cup A \times C$
- B. $A \times (B \cap C)$

C. $(A \times B) \cap (A \times C)$

D. $(A \cup B) \times (A \cup C)$

Answer: A

495. If A contains n elements, B contains m elements, and C contains p elements, how many elements will be in the set $A \times (B \cup C)$?

A. $n \times m + n \times p$

B. $n \times (m + p)$

C. $n \times (m + p) \times 2$

D. $n + m + p$

Answer: B

496. What is the cardinality of the set $A \times (B \cup C)$ in terms of the cardinalities of A, B, and C?

A. $|A \times (B \cup C)| = |A| \times |B \cup C|$

B. $|A \times (B \cup C)| = |A| + |B \cup C|$

C. $|A \times (B \cup C)| = |A| \times (|B| + |C|)$

D. $|A \times (B \cup C)| = |A| \times |B| \times |C|$

Answer: C

497. If $A = \{1, 2, 3\}$, $B = \{3, 4\}$, and $C = \{4, 5\}$, what is $A \times (B \cup C)$?

A. $\{(1, 3), (1, 4), (1, 5), (2, 3), (2, 4), (2, 5), (3, 3), (3, 4), (3, 5)\}$

B. $\{(1, 4), (2, 3), (3, 5)\}$

C. $\{(1, 3), (2, 4), (3, 5)\}$

D. $\{(1, 1), (2, 2), (3, 3), (4, 4), (5, 5)\}$

Answer: A

498. What is the relationship between $A \times (B \cup C)$ and $(A \times B) \cup (A \times C)$?

A. They are equal.

B. They are disjoint sets.

C. $A \times (B \cup C)$ is a subset of $(A \times B) \cup (A \times C)$.

D. $(A \times B) \cup (A \times C)$ is a subset of $A \times (B \cup C)$.

Answer: A

499. If A contains no elements ($A = \emptyset$), what is $A \times (B \cup C)$?

A. $\emptyset$

B. $A \times B \cup A \times C$

C. $B \cup C$

D. $A \times (B \cup C)$

Answer: A

500. If $A = \{1, 2\}$, $B = \{2, 3\}$, and $C = \{3, 4\}$, what is $A \times (B \cup C)$?

A. $\{(1, 2), (1, 3), (1, 4), (2, 2), (2, 3), (2, 4)\}$

B. $\{(1, 2), (2, 3), (3, 4)\}$

C. $\{(1, 3), (2, 4)\}$

D. $\{(1, 1), (2, 2), (3, 3), (4, 4)\}$

Answer: A

501. What is the sum of the digits in the two-digit number?

A. 6

B. 12

C. 18

D. 24

Answer: B. 12

502. If the sum of the digits of a two-digit number is 10, and the difference between the digits is 3, what could be the number?

A. 37 or 73

B. 24 or 42

C. 68 or 86

D. 55 or 55

Answer: A. 37 or 73

503. If the sum of the digits of a two-digit number is 15, and the difference between the digits is 9, what is the number?

A. 69

B. 96

C. 24

D. 51

Answer: B. 96

504. If the sum of the digits of a two-digit number is 8, and the difference between the digits is 4, what are the possible numbers?

A. 26 or 62

B. 35 or 53

C. 47 or 74

D. 59 or 95

Answer: A. 26 or 62

505. If the sum of the digits of a two-digit number is 11, and the difference between the digits is 5, what is the number?

A. 24

B. 86

C. 62

D. 53

Answer: C. 62

506. What is the difference between the digits of a two-digit number if the sum of the digits is 7 and the number is greater than 70?

A. 1

B. 2

C. 3

D. 4

Answer: B. 2

507. If the sum of the digits of a two-digit number is 13, and the difference between the digits is 7, what are the possible numbers?

A. 46 or 64

B. 29 or 92

C. 58 or 85

D. 73 or 37

Answer: A. 46 or 64

508. If the sum of the digits of a two-digit number is 9, and the difference between the digits is 3, what is the number?

A. 63

B. 72

C. 45

D. 54

Answer: B. 72

509. If the sum of the digits of a two-digit number is 14, and the difference between the digits is 8, what is the number?

A. 51

B. 59

C. 86

D. 95

Answer: D. 95

510. What is the sum of the digits of a two-digit number if the difference between the digits is 1 and the number is less than 50?

A. 5

B. 6

C. 7

D. 8

Answer: C. 7

511. If the sum of the digits of a two-digit number is 16, and the difference between the digits is 6, what are the possible numbers?

A. 37 or 73

B. 89 or 98

C. 24 or 42

D. 51 or 15

Answer: B. 89 or 98

512. If the sum of the digits of a two-digit number is 6, and the difference between the digits is 2, what is the number?

A. 15

B. 33

C. 42

D. 24

Answer: D. 24

513. If the sum of the digits of a two-digit number is 10, and the difference between the digits is 2, what is the number?

A. 28

B. 37

C. 46

D. 55

Answer: A. 28

514. What is the sum of the digits of a two-digit number if the difference between the digits is 4 and the number is greater than 60?

A. 9

B. 8

C. 7

D. 6

Answer: B. 8

515. If the sum of the digits of a two-digit number is 12, and the difference between the digits is 4, what could be the number?

A. 86 or 68

B. 31 or 13

C. 42 or 24

D. 59 or 95

Answer: A. 86 or 68

516. What is $A \times (B \cup C)$ equivalent to?

A. $(A \times B) \cup (A \times C)$

B. $(A \cup B) \times (A \cup C)$

C. $(A \times B) \cap (A \times C)$

D. None of the above

Answer: A

17) Which of the following is largest among others?

A. $\sqrt{0.0004}$

B. $\sqrt{0.0121}$

C. $(0.1)^2$

D. 0.12

Answer: (d) 0.12

Explanation: Let's examine each option individually,

$$\sqrt{0.0004} = 0.02$$

$$\sqrt{0.0121} = 0.11$$

$$(0.1)^2 = 0.1$$

$$0.12 = 0.12$$

From the above examination, we can see 0.12 is the largest among others.

518) What will be the unit digit of $(2153)^{167}$?

A. 1

B. 7

C. 3

D. 9

Answer: (b) 7

Explanation: We have 2153^{167} , and the unit digit is = 3^{167}

As we know,

$$3^1 = 3 = \text{unit digit is } 3$$

$$3^2 = 9 = \text{unit digit is } 9$$

$$3^3 = 27 = \text{unit digit is } 7$$

$$3^4 = 81 = \text{unit digit is } 1$$

The cycle will continue. On dividing the power of 3 by 4, we will get –

$$167/4 = \text{remainder is } 3$$

So, 3^3 gives us the unit digit 7. So, the unit digit of 2153^{167} is 7.

519) If the sum of two numbers is considered as 'a' and their product is considered as 'b', then what will be the sum of their reciprocals?

A. a/b

B. $1/b + 1/b$

C. b/a

D. ab

Answer: (a) a/b

Explanation: Suppose the numbers are P and Q

So, according to the question –

$$P + Q = a$$

$$P * Q = b$$

$$\begin{aligned}\text{Sum of reciprocals of P and Q is} &= 1/P + 1/Q \\ &= Q + P/PQ \\ &= a/b\end{aligned}$$

520) From the list of below options, which of the fraction is the smallest?

- A. $14/33$
- B. $7/13$
- C. $11/13$
- D. $8/15$

Answer: (a) $14/33$

Explanation: Suppose the numbers are P and Q

So, according to the question –

$$P + Q = a$$

$$P * Q = b$$

$$\begin{aligned}\text{Sum of reciprocals of P and Q is} &= 1/P + 1/Q \\ &= Q + P/PQ \\ &= a/b\end{aligned}$$

521) If the number A381 is divisible by 11, then what is the value of A?

- A. 7
- B. 3
- C. 1
- D. 8

Answer: (a) 7

Explanation: A number is divisible by 11 if the difference of the sum of digits on odd places and the sum of digits on even places is zero or divisible by 11. So, we have the number A381.

$$\text{Hence, } (A + 8) - (3 + 1) = \text{either } 0 \text{ or multiple of } 11$$

If we put $A = 7$, then we get

$$(7 + 8) - (3 + 1) = 15 - 4 = 11 \text{ (Which is divisible by 11).}$$

522) Suppose a number 381A is divisible by 9, then what is the value of A?

- A. 6
- B. 3
- C. 1
- D. 8

Answer: (a) 6

Explanation: A number is divisible by 9 if the sum of its digits is divisible by 9, e.g., 117. So, we have the number 381A.

Hence, $3 + 8 + 1 + A = \text{multiple of } 9$

If we put $A = 6$, then we get

$$3 + 8 + 1 + 6 = 18 \text{ (which is a multiple of } 9\text{)}$$

523) Suppose there is a number 'n'. When 'n' is divided by 5, the remainder will be 2. What will be the remainder when n^2 is divided by 5?

- A. 6
- B. 4
- C. 1
- D. 8

Answer: (b) 4

Explanation: According to the question when 'n' is divided by 5, we will get the remainder 2
 $n/5 = \text{remainder } 2$

On putting $n = 7$, and on dividing it with 5 we will get remainder 2

So, $n = 7$, and $n^2 = 49$

$$n^2/5 = 49/5 = \text{remainder } 4$$

524) If the difference between three times and seven times of a number is equal to 36, what will be the number?

- A. 9
- B. 4
- C. 1
- D. 8

Answer: (a) 9

Explanation: Let the number be X.

So according to the question –

$$7X - 3X = 36$$

$$4X = 36$$

Or,

$$X = 36/4 = 9$$

So, the required number is 9.

525) What will be the value of x, if $5(x + 3) = 25(3x - 4)$?

A. 11/5

B. 11/6

C. 5/11

D. 6/11

Answer: (a) 11/5

Explanation: Given, $5(x + 3) = 25(3x - 4)$

We can write it as –

$$5(x + 3) = 5 \times (3x - 4)$$

Or,

$$x + 3 = 3x - 4$$

$$x + 3 = 3x - 8$$

$$\text{or, } 5x = 11$$

$$\text{So, } x = 11/5$$

526) If the sum of two numbers is 12 and their product is 35, then what will be the sum of their reciprocals?

A. 12/35

B. 1/5

C. 2/3

D. None of the above

Answer: (a) $12/35$

Explanation: Suppose the numbers are P and Q

So, according to the question –

$$P + Q = 12$$

$$P * Q = 35$$

Sum of reciprocals of P and Q is $= 1/P + 1/Q$

$$= Q + P/PQ$$

$$= 12/35$$

527) What will be the value of $a^3 - 3a^2 + 3a + 3b + 3b^2 + b^3$, if $a = -4$, and $b = -2$?

A. 126

B. -125

C. -126

D. 125

Answer: (c) -126

Explanation: Given $a = -4$ and $b = -2$

On putting the values in the given equation, we will get –

$$(-4)^3 - 3 \times (-4)^2 + 3 \times (-4) + 3 \times (-2) + 3 \times (-2)^2 + (-2)^3$$

$$= -64 - 48 - 12 - 6 + 12 - 8$$

$$= -126$$

528) If the sum and reciprocal of a number is equal to 2, the number is –

A. 1

B. -1

C. -2

D. 2

Answer: (a) 1

Explanation: Suppose the number is a.

So, according to the question –

$$a + 1/a = 2$$

$$(a^2 + 1)/a = 2$$

$$a^2 + 1 = 2a$$

$$\text{Or, } a^2 + 1 - 2a = 0$$

We can say that $(a - 1)^2 = 0$

$$\text{So, } a = 1$$

Hence the required number is 1, whose sum and reciprocal are equal to 2.

529) If the ratio of two positive numbers is 7 : 9 and their product is 1575, then the greatest number is –

A. 45

B. 15

C. 35

D. 55

Answer: (a) 45

Explanation: Given ration 7 : 9

So, let the numbers be 7a and 9a. According to the question –

$$7a * 9a = 1575$$

$$63a^2 = 1575$$

$$a^2 = 1575/63$$

$$\text{Or } a^2 = 25$$

$$\text{And } a = 5$$

So, the two numbers will be –

$$7a = 7 * 5 = 35$$

$$\text{And } 9a = 9 * 5 = 45$$

Hence, the greater number is 45 between the given numbers.

530) The sum of two numbers is equal to the thrice of their difference. What will be the ratio between them?

A. 1 : 3

B. 3 : 1

C. 1 : 2

D. 2 : 1

Answer: (d) 2 : 1

Explanation: Let the numbers be 'a' and 'b'. According to the question –

$$(a + b) = 3(a - b)$$

$$(a + b) = 3a - 3b$$

$$2a = 4b$$

$$a = 2b$$

$$\text{So, } a/b = 2 : 1$$

531) Which of the following is equal to x^3 ?

A. x^6x^3

B. $x^6 + x^3$

C. x^6 / x^3

D. $(x^6)^3$

Answer: (c) x^6 / x^3

Explanation: We can write x^6 / x^3 as,

$$x^{6-3} = x^3$$

532) The sum of four consecutive even numbers is 748, then which is the smallest number among them?

A. 184

B. 186

C. 174

D. None of the above

Answer: (a) 184

Explanation: Let a be the smallest even number

So, according to the question –

$$(a) + (a + 2) + (a + 4) + (a + 6) = 748$$

$$4(a) + 12 = 748$$

$$4a = 736$$

$$\text{Or, } a = 184$$

So, the smallest number be 184

Alternative solution

We can use an alternative solution of it

$$\text{Middle term} = 748/4 = 187$$

So, the numbers will 184, 186, 188, and 190

And the smallest number between them is 184.

533) If $(64)^2 - (36)^2 = 20 * x$, then what is the value of x?

A. 120

B. 140

C. 112

D. None of the above

Answer: (b) 140

Explanation: Here, we can apply the formula of $a^2 - b^2 = (a + b)(a - b)$

So, after applying the formula, we will get

$$(64 + 36)(64 - 36) = 20 * x$$

$$100 * 28 = 20 * x$$

$$x = 100 * 28 / 20 = 140$$

534) What is the value of $(a - b)$, if $(a^2 - b^2)/(a + b) = 25$?

A. 36

B. 22

C. 45

D. 25

Answer: (d) 25

Explanation: According to the identity,

$$a^2 - b^2 = (a + b)(a - b)$$

$$\text{It is given that } (a^2 - b^2)/(a + b) = 25$$

So, it can be written as $(a + b)(a - b)/(a + b) = 25$

Hence, $(a - b) = 25$

535) What will be the result of 1397×1397 ?

A. 1951609

B. 1951608

C. 1951699

D. None of the above

Answer: (a) 1951609

Explanation: Given 1397×1397

We can also write it as $(1397)^2$

Or, $(1400 - 3)^2$

On expanding we get,

$$= (1400)^2 + (3)^2 - (2 \times 1400 \times 3)$$

$$= 1960000 + 9 - 8400$$

$$= 1960009 - 8400$$

$$= 1951609$$

536) Which of the following is the unit digit in $(1570)^2 + (1571)^2 + (1572)^2 + (1573)^2$?

A. 2

B. 4

C. 6

D. 7

Answer: (b) 4

Explanation: Pick up the unit digit of each number and multiply them;

$$0^2 \text{ in } (1570)^2 = 0$$

$$1^2 \text{ in } (1571)^2 = 1$$

$$2^2 \text{ in } (1572)^2 = 4$$

$$3^2 \text{ in } (1573)^2 = 9$$

On adding the unit digits, we will get,

$$0 + 1 + 4 + 9 = 14 \text{ (unit digit = 4)}$$

So, on adding $(1570)^2 + (1571)^2 + (1572)^2 + (1573)^2$, the unit digit will be 4.

537) Suppose $x = a(b - c)$, $y = b(c - a)$, $z = c(a - b)$, then what is the value of $(x/a)^3 + (y/b)^3 + (z/c)^3$?

A. $3xyz/abc$

B. $2xyz/abc$

C. xyz/abc

D. None of the above

Answer: (a) $3xyz/abc$

Explanation: Given $x = a(b - c)$, $y = b(c - a)$, $z = c(a - b)$

$$x = a(b - c)$$

$$\text{or, } x/a = (b - c) \dots\dots(i)$$

$$y = b(c - a)$$

$$\text{or, } y/b = (c - a) \dots\dots(ii)$$

$$z = c(a - b)$$

$$\text{or, } z/c = (a - b) \dots\dots(iii)$$

Add equation (i), (ii), and (iii), we will get

$$x/a + y/b + z/c = b - c + c - a + a - b$$

$$x/a + y/b + z/c = 0$$

So, $(x/a)^3 + (y/b)^3 + (z/c)^3 = 3 (x/a) * (y/b) * (z/c)$ [because if $a + b + c = 0$, then $a^3 + b^3 + c^3 = 3abc$] $= 3xyz/abc$

538) The sum of three numbers is 2, if the first number is $\frac{1}{2}$ times of the 2nd number, and the third number is $\frac{1}{4}$ times of the 2nd number. What will be the second number?

A. $8/7$

B. $7/8$

C. $6/7$

D. $7/6$

Answer: (a) $8/7$

Explanation: Suppose the numbers be a, b, and c. So, according to the question,

$$a + b + c = 2$$

$$\text{and, } a = \frac{1}{2}b \dots(i)$$

$$c = \frac{1}{4}b \dots(ii)$$

From equation (i),

$$a/b = \frac{1}{2}$$

and from equation (ii)

$$b/c = 4/1$$

Ratio between a, b, c is

$$a : b : c = 2x : 4x : 1x$$

$$(2x + 4x + 1x) = 2$$

$$7x = 2$$

$$\text{So, } x = 2/7$$

$$\text{Then } a = 2x = 2 * 2/7 = 4/7$$

$$b = 4x = 4 * 2/7 = 8/7$$

$$c = x = 2/7$$

So, the second number is 8/7.

539) The sum of the squares of three consecutive positive numbers is 365. What will the sum of numbers?

A. 36

B. 33

C. 45

D. None of the above

Answer: (b) 33

Explanation: Suppose the three consecutive positive numbers be x , $x + 1$, and $x + 2$

According to the question,

$$(x)^2 + (x + 1)^2 + (x + 2)^2 = 365$$

On expanding, we will get,

$$x^2 + x^2 + 1 + 2x + x^2 + 4 + 4x = 365$$

$$3x^2 + 6x = 360$$

$$\text{Or, } x^2 + 2x - 120 = 0$$

$$\Rightarrow (x - 10)(x + 12) = 0$$

$$\text{So, } x = 10$$

$$\text{First number } x = 10$$

$$\text{Second number } x + 1 = 11$$

$$\text{Third number } x + 2 = 12$$

$$\text{So, sum of the numbers is } = 10 + 11 + 12 = 33$$

540) The sum of three numbers is 252. What is the value of the second number if the first number is thrice of the second number, and the third number is two-third of the first number?

A. 36

B. 42

C. 45

D. None of the above

Answer: (b) 42

Explanation: Suppose the three numbers be a, b, and c

According to the question,

$$a = 3b \text{ or, } a/b = 3/1$$

$$c = 2/3a \text{ or, } a/c = 3/2$$

Ratio between a, b, c is

$$a : b : c = 3x : x : 2x$$

$$(3x + x + 2x) = 252$$

$$6x = 252$$

$$\text{So, } x = 252/6 = 42$$

$$\text{Then, first number } a = 3x = 3 * 42 = 126$$

$$\text{Second number, } b = x = 42$$

$$\text{Third number, } c = 2x = 42 * 2 = 84$$

So, the second number is 42.

541) If x , y , and z are said to be the real numbers, then what is the value of $(x - y)^3 + (y - z)^3 + (z - x)^3$?

A. 0

B. $(x - y)$

C. $3(x - y)(y - z)(z - x)$

D. $(x - y)(y - z)(z - x)$

Answer: (c) $3(x - y)(y - z)(z - x)$

Explanation: Suppose $a = (x - y)$, $b = (y - z)$, and $c = (z - x)$

On adding a , b , and c we will get

$$a + b + c = x - y + y - z + z - x$$

$$\Rightarrow a + b + c = 0$$

So, $a^3 + b^3 + c^3 = 3abc$ [because if $a + b + c = 0$, then $a^3 + b^3 + c^3 = 3abc$] We can say that $(x - y)^3 + (y - z)^3 + (z - x)^3 = 3(x - y)(y - z)(z - x)$

542) If the sum of the digits of a two-digit number is 12, and the difference between the digits of that number is 6, what will be the number?

A. 36 or 63

B. 22 or 22

C. 39 or 93

D. 25 or 52

Answer: (c) 39 or 93

Explanation: We can solve it via two ways. Let's see the ways.

Shortcut method:

We can also get the answer using the specified options. We can check the digits of the numbers mentioned in the options. As in the option 'C', there are 39 or 93, and on adding their digits, we will get 12, and on subtracting the digits, we will get 6.

Detailed method:

Suppose the digits of the two-digit number be 'a' and 'b'.

So, according to the question

$$a + b = 12 \dots(i)$$

$$a - b = 6 \dots(ii)$$

Add equation (i) and (ii), we get

$$2a = 18$$

$$\text{Or, } a = 9$$

Put $a = 9$ in eqn (i), we will get

$$b = 3$$

So, the two-digit number is 93 (when $a > b$)

Or 39 (when $b > a$)

543) If the three-fifth of a number is equal to 70% of another number, what is the ratio between the first number and second number?

A. $6 : 7$

B. $7 : 6$

C. $3 : 4$

D. $4 : 3$

Answer: (b) $7 : 6$

Explanation: Let the numbers be a and b .

So, according to the question,

$$a * \frac{3}{5} = 70\% \text{ of } b$$

$$\frac{3a}{5} = \frac{70b}{100}$$

$$\frac{a}{b} = \frac{(70 * 5)}{(100 * 3)} = \frac{7}{6}$$

So, the ration between a and b is $7 : 6$.

544) If the sum of the cubes of three numbers is 4500, and their ratio is $1 : 2 : 3$, what is the value of the smallest number between them?

A. 6

B. 5

C. 3

D. 4

Answer: (b) 5

Explanation: Given ratio is $1 : 2 : 3$

So, the numbers will be $1a : 2a : 3a$

Then, $a^3 + 8a^3 + 27a^3 = 4500$

$$36a^3 = 4500$$

$$\text{Or, } a^3 = 4500/36 = 125$$

$$\text{So, } a = 5$$

The smallest number is 5.

545) The denominator of a fraction is 3 more than its numerator. If the denominator is decreased by 2, and the numerator is increased by 7, we will get 2. What will be the sum of the numerator and denominator of that fraction?

A. 6

B. 13

C. 31

D. 14

Answer: (b) 13

Explanation: Let the numerator be 'a' so, denominator will be 'a + 3'.

According to the question,

$$(a + 7) / ((a + 3) - 2) = 2/1$$

$$(a + 7) / (a + 1) = 2/1$$

$$2a + 2 = a + 7$$

$$\Rightarrow a = 5$$

So, the fraction is $a/a + 3 = 5/5 + 3$

$$= 5/8$$

And the sum of the numerator and denominator of the fraction is 13.

546) Which of the following is the result of 1505×1505 ?

A. 2265015

B. 2265035

C. 2265025

D. None of the above

Answer: (c) 2265025

Explanation: Given: 1505×1505

$$= 1505^2$$

$$= (1500 + 5)^2$$

Apply formula; $(a + b)^2 = a^2 + b^2 + 2ab$

$$= 1500^2 + 5^2 + 2 \times 1500 \times 5$$

$$= 2250000 + 25 + 15000$$

$$= 2265025$$

547) A boy has mistakenly multiplied a number by 45 instead of multiplying it with 25. Due to this, the answer was 200 more than the correct answer. What was the number?

A. 15

B. 10

C. 7

D. None of the above

Answer: (b) 10

Explanation: The required number = Increase in result / (wrong multiplier – correct multiplier)

$$= 200 / 45 - 25$$

$$= 10$$

548) If $a = (0.4)^2$, $b = 0.04$, and $c = 2/5$, then which of the following is the correct relationship between a, b, and c?

A. $c > a > b$

B. $a > b > c$

C. $a < b < c$

D. None of the above

Answer: (a) $c > a > b$

Explanation: $a = (0.4)^2 = 0.16$

$$b = 0.04$$

$$c = 2/5 = 0.4$$

So, the relationship is $c > a > b$.

549) The sum of the numerator and denominator of a fraction is 11. If we add 2 to both numerator and denominator, the fraction will be increased by $\frac{1}{24}$. What is the difference between the numerator and denominator of that fraction?

- A. 1
- B. 2
- C. 6
- D. 8

Answer: (a) 1

Explanation: Let the numerator of the fraction be x , so the denominator will be $11 - x$

So, the fraction = $\frac{x}{11 - x}$

On adding 2 in both numerator and denominator, according to the question, the fraction will be –

$$\frac{(x + 2)}{(11 - x + 2)} = \frac{(x)}{(11 - x)} + \frac{1}{24}$$

$$\frac{(x + 2)}{(13 - x)} - \frac{(x)}{(11 - x)} = \frac{1}{24}$$

$$[11x + 22 - x^2 - 2x - 13x + x^2]/(13 - x)(11 - x) = \frac{1}{24}$$

After solving the above equation, we will get

$$\Rightarrow 528 - 96x = 143 - 24x + x^2$$

$$x^2 + 72x - 385 = 0$$

$$(x + 77)(x - 5) = 0$$

So, $x = 5$

So, numerator = 5

and, denominator = $11 - 5 = 6$

Difference between both is = $6 - 5 = 1$

550) If a and b are two odd numbers, then which of the following is even?

- A. $a + b + 2ab$
- B. $a + b + ab$
- C. $a + b + 1$
- D. None of the above

Answer: (a) $a + b + 2ab$

Explanation: None

551. How many elements are there in the complement of set A?

A. 0

B. 1

C. All the elements of A

D. None of these

Answer: A. 0

Explanation: The complement of a set A will contain the elements that are not present in set A.

552. Empty set is a _____.

A. Infinite set

B. Finite set

C. Unknown set

D. Universal set

Answer: B. Finite set

Explanation: The cardinality of the empty set is zero, since it has no elements. Hence, the size of the empty set is zero.

553. The number of elements in the Power set $P(S)$ of the set $S = \{1, 2, 3\}$ is:

A. 4

B. 8

C. 2

D. None of these

Answer: B. 8

Explanation: Number of elements in the set $S = 3$

Number of elements in the power set of set $S = \{1, 2, 3\} = 2^3$

554. Order of the power set $P(A)$ of a set A of order n is equal to:

- A. n
- B. $2n$
- C. 2^n
- D. n^2

Answer: C. 2^n

Explanation: The cardinality of the power set is equal to 2^n , where n is the number of elements in a given set.

555. Which of the following two sets are equal?

- A. $A = \{1, 2\}$ and $B = \{1\}$
- B. $A = \{1, 2\}$ and $B = \{1, 2, 3\}$
- C. $A = \{1, 2, 3\}$ and $B = \{2, 1, 3\}$
- D. $A = \{1, 2, 4\}$ and $B = \{1, 2, 3\}$

Answer: C. $A = \{1, 2, 3\}$ and $B = \{2, 1, 3\}$

Explanation: Two sets are said to be equal if they both have the same elements.

556. Let $U = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10\}$, $P = \{1, 2, 5\}$, $Q = \{6, 7\}$. Then $P \cap Q'$ is :

- A. P
- B. Q
- C. Q'
- D. None

Answer: A. P

Explanation: Given,

$$U = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10\}$$

$$P = \{1, 2, 5\}$$

$$Q = \{6, 7\}$$

$$Q' = \{1, 2, 3, 4, 5, 8, 9, 10\}$$

Hence,

$$P \cap Q' = \{1, 2, 5\} = P$$

557. The cardinality of the power set of $\{x: x \in \mathbb{N}, x \leq 10\}$ is _____.

A. 1024

B. 1023

C. 2048

D. 2043

Answer: A. 1024

Explanation: Given,

Set $X = \{x: x \in \mathbb{N}, x \leq 10\}$

$X = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10\}$

Number of elements of power set of X, $P(X) = 2^{10} = 1024$

558. Write $X = \{1, 4, 9, 16, 25, \dots\}$ in set builder form.

A. $X = \{x: x \text{ is a set of prime numbers}\}$

B. $X = \{x: x \text{ is a set of whole numbers}\}$

C. $X = \{x: x \text{ is a set of natural numbers}\}$

D. $X = \{x: x \text{ is a set of square numbers}\}$

Answer: D. $X = \{x: x \text{ is a set of square numbers}\}$

Explanation: Given,

$X = \{1, 4, 9, 16, 25, \dots\}$

$X = \{1^2, 2^2, 3^2, 4^2, 5^2, \dots\}$

Therefore,

$X = \{x: x \text{ is a set of square numbers}\}$

559. If A, B and C are any three sets, then $A \times (B \cup C)$ is equal to:

A. $(A \times B) \cup (A \times C)$

B. $(A \cup B) \times (A \cup C)$

C. $(A \times B) \cap (A \times C)$

D. None of the above

Answer: A. $(A \times B) \cup (A \times C)$

Explanation: Given,

A, B and C are any three sets.

Now, $A \times (B \cup C) = (A \times B) \cup (A \times C)$

560. The range of the function $f(x) = 3x - 2$, is:

A. $(-\infty, \infty)$

B. $\mathbb{R} - \{3\}$

C. $(-\infty, 0)$

D. $(0, -\infty)$

Answer: A. $(-\infty, \infty)$

Hint:

Let the given function be

$$y = 3x - 2$$

$$\Rightarrow y + 2 = 3x$$

$$\Rightarrow x = (y + 2)/3$$

Since, for all values of y , x has different values. Thus, values of x and y can range from $-\infty$ to ∞ .

So, $\text{Range}\{f(x)\} = \mathbb{R} = (-\infty, \infty)$.

561. Every rational number is a –

A. Whole number

B. Real number

C. Natural number

D. None of the above

Answer: (b) Real number

Explanation: The numbers which can be found on the number line and include both rational and irrational numbers are known as real numbers, e.g., $-1.5, \sqrt{2}, 0, 1, 2, 3, \pi$. Almost any number which you can imagine is a real number.

562. Between any two numbers, there are –

A. Two rational numbers

B. No rational number

C. Infinite rational numbers

D. None of the above

Answer: (c) Infinite rational numbers

Explanation: There are infinite rational numbers in between any two numbers.

563) What will be the value of $x^3 + y^3 + z^3$, if $x + y + z = 0$?

A. $3xyz$

B. $2xyz$

C. xyz

D. $xyz(xy + yz + zx)$

Answer: (a) $3xyz$

Explanation: It is given that

$$x + y + z = 0$$

On cubing both sides, we will get

$$(x + y + z)^3 = 0$$

$$x^3 + y^3 + z^3 - 3xyz = 0$$

So, the value of $x^3 + y^3 + z^3 = 3xyz$

564) Digit 1 is occurring 136 times on writing all of the page numbers of a book. What will be the number of pages in the book?

A. 194

B. 195

C. 200

D. 295

Answer: (b) 195

Explanation: From 1 – 99, the digit 1 occurs 20 times, and from 100 – 199, the digit 1 occurs 120 times.

So, from 1 to 199, the digit 1 occurs –

$$20 + 120 = 140 \text{ times}$$

According to question 1 is occurring only 136 times, which means we need to remove 196, 197, 198, and 199. So, the required number of pages will be 195.

565) Which of the following is the unit digit in the product of $853 \times 452 \times 226 \times 1346$?

- A. 2
- B. 5
- C. 6
- D. 7

Answer: (c) 6

Explanation: Pick up the unit digit of each number and multiply them;

3 in 853

2 in 452

6 in 226

6 in 1346

$\therefore 3 \times 6 \times 2 \times 6 = 216$ (consider the unit digit in the product)

So, the unit digit in the product of $853 \times 1346 \times 452 \times 226$ is 6.

566) The sum of odd numbers up to 240 is –

- A. 11400
- B. 12400
- C. 13400
- D. 14400

Answer: (d) 14400

Explanation: Number of odd numbers up to 240 = $240/2 = 120$

Sum of first n odd numbers = n^2

$n = 120$

Required sum = $120^2 = 14400$

567) Which of the following number is divisible by 9?

- A. 56785
- B. 45678
- C. 65889
- D. 67578

Answer: (c) 65889

Explanation: A number is divisible by 9 if the sum of its digits is divisible by 9.

The Sum of the digits of the given numbers are;

$$6+7+5+7+8= 33$$

$$5+6+7+8+5= 31$$

$$4+5+6+7+8= 30$$

$$6+5+8+8+9= 36$$

The sum of the digits of the number 65889 is 36, which is divisible by 9, so the correct answer is 65889.

568) What smallest number should be subtracted from 9805 so that it is divisible by 8?

A. 6

B. 7

C. 5

D. 8

Answer: (c) 5

Explanation: On dividing 9805 by 8, the remainder is 5. So, 5 is the smallest number which should be subtracted from 9805 to make it divisible by 8.

569) Which of the following is the unit digit in the product of $\{(341)^{491} \times (625)^{317} \times (6374)^{1793}\}$?

A. 3

B. 7

C. 0

D. 8

Answer: (c) 0

Explanation: Pick up the unit digit of each number and multiply them;

Unit digit in $(341)^{491}$

$$= \text{Unit digit in } (1)^{491} = 1$$

Unit digit in $(625)^{317}$

$$= \text{Unit digit in } (5)^{317} = 5$$

Unit digit in $(6374)^{1793}$

$= (4)^{1793}$

$= \text{unit digit in } [(42)^{896} \times 4] = \text{unit digit in } 6 \times 4 = 4$

So, on multiplying the unit digits, we will get –

$1 \times 5 \times 4 = 20$ (consider the unit digit in the product)

So, the unit digit in the product of $\{(341)^{491} \times (625)^{317} \times (6374)^{1793}\}$ is 0.

570) Which of the following is completely divisible by 45?

A. 331145

B. 306990

C. 181660

D. None of the above

Answer: (b) 306990

Explanation: A number that can be divisible by 3, 5, and 9 is also divisible by 45.

So, we check the divisibility of given numbers by the following rules –

A number is divisible by 3 if the sum of its entire digits is divisible by 3.

The number which ends with 0 or 5 is divisible by 5.

A number is divisible by 9 if the sum of its entire digits is divisible by 9.

The number 306990 fulfills all the requirements, so the answer is 306990.

571) If the two-third of three – fourth of a number is 34, what will be the 20% of that number?

A. 13.4

B. 13.6

C. 13.7

D. 14

Answer: (b) 13.6

Explanation: Let the number be X.

According to the question,

$$\frac{2}{3} * \frac{3}{4} * X = 34$$

$$\frac{6}{12} * X = 34$$

Or,

$$\frac{1}{2} * X = 34$$

$$\text{So, } X = 68$$

$$\text{Now, 20\% of 68 is } = 68 * \frac{20}{100} = 13.6$$

572) 7X2 is a three-digit number in which X is a missing digit. If the number is divisible by 6, the missing digit is –

A. 4

B. 3

C. 7

D. 5

Answer: (b) 3

Explanation: The given number is divisible by 6, so it would be divisible by 2 and 3. As the last digit is 2, whatever be the value of X, it would be divisible by 2.

Now, $7 + X + 2 = 9 + X$, must be divisible by 3.

So, $X = 3$ makes the number divisible by 3, so 3 is the required digit.

573) Which is the largest 4-digit number that can be exactly divisible by 66?

A. 9987

B. 9912

C. 9913

D. 9966

Answer: (d) 9966

Explanation: The largest four-digit number is = 9999, and on dividing it with 66, we will get 33 as the remainder.

$$\text{So, the largest 4-digit number divided by 66} = 9999 - 33 = 9966$$

574) Which is the largest 4-digit number that can be exactly divisible by 66?

A. 9987

B. 9912

C. 9913

D. 9966

Answer: (d) 9966

Explanation: The largest four-digit number is = 9999, and on dividing it with 66, we will get 33 as the remainder.

So, the largest 4-digit number divided by 66 = $9999 - 33 = 9966$

575) What will be the remainder when 636 is divided by 215?

A. 3

B. 2

C. 1

D. None of the above

Answer: (c) 1

Explanation: We can write 636/215 as

$(63)12/215$

Or, we can say $21612/215$

We will always get remainder 1 on dividing 216 by 215

$= 112/215$

So, the remainder will be 1.

576) Which of the following is the least number which will leave the remainder 5, when divided by 8, 12, 16, and 20?

A. 245

B. 255

C. 265

D. None of the above

Answer: (a) 245

Explanation: First we need to find the least number, so we have to find out the LCM of 8, 12, 16, and 20.

$8 = 2 \times 2 \times 2$

$12 = 2 \times 2 \times 3$

$16 = 2 \times 2 \times 2 \times 2$

$$20 = 2 \times 2 \times 5$$

$$\text{LCM} = 2 \times 2 \times 2 \times 2 \times 3 \times 5 = 240$$

240 is the least number that is exactly divisible by 8, 12, 16, and 20.

So, the required number that will leave remainder 5 is –

$$240 + 5 = 245$$